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ABSTRACT

This document contains the text of 1997 legislation to amend and reauthorize the Agricultural Research, Extension, and Education Act. The act contains five titles that cover the following: Coordination, Planning, and Definitions regarding Agricultural Research, Extension, and Education; Reform of Existing Research, Extension, and Education Authorities; Extension or Repeal of Research, Extension, and Education Initiatives; New Research, Extension, and Education Initiatives; and Miscellaneous Provisions. (KC)

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## AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION REAUTHORIZATION ACT OF 1997

NOVEMBER 4, 1997.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. SMITH of Oregon, from the Committee on Agriculture,  
submitted the following

### R E P O R T

together with

### ADDITIONAL VIEWS

[To accompany H.R. 2534]

[Including cost estimate of the Congressional Budget Office]

The Committee on Agriculture, to whom was referred the bill (H.R. 2534) to reform, extend, and repeal certain agricultural research, extension, and education programs, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

#### SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) **SHORT TITLE.**—This Act may be cited as the "Agricultural Research, Extension, and Education Reauthorization Act of 1997".

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.

#### TITLE I—COORDINATION, PLANNING, AND DEFINITIONS REGARDING AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION

- Sec. 101. Priorities and management principles for federally supported and conducted agricultural research, education, and extension.  
Sec. 102. Principal definitions regarding agricultural research, education, and extension.  
Sec. 103. Consultation with National Agricultural Research, Extension, Education, and Economics Advisory Board.  
Sec. 104. Relevance and merit of federally funded agricultural research, extension, and education.

59-006

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- Sec. 105. Expansion of authority to enter into cost-reimbursable agreements.  
 Sec. 106. Evaluation and assessment of agricultural research, extension, and education programs.

## **TITLE II—REFORM OF EXISTING RESEARCH, EXTENSION, AND EDUCATION AUTHORITIES**

### **Subtitle A—Smith-Lever Act and Hatch Act of 1887**

- Sec. 201. Adoption of short titles for Smith-Lever Act and Hatch Act of 1887.  
 Sec. 202. Consistent matching funds requirements under Hatch Act of 1887 and Smith-Lever Act.  
 Sec. 203. Plans of work to address critical research and extension issues and use of protocols to measure success of plans.

### **Subtitle B—National Agricultural Research, Extension, and Teaching Policy Act of 1977**

- Sec. 211. Plans of work for 1890 land-grant colleges to address critical research and extension issues and use of protocols to measure success of plans.  
 Sec. 212. Matching funds requirement for research and extension activities at 1890 land-grant colleges, including Tuskegee University.  
 Sec. 213. International research, extension, and teaching.  
 Sec. 214. Task force on 10-year strategic plan for agricultural research facilities.

### **Subtitle C—Food, Agriculture, Conservation, and Trade Act of 1990**

- Sec. 231. National agricultural weather information system.  
 Sec. 232. Agricultural genome initiative.

### **Subtitle D—National Research Initiative**

- Sec. 241. Waiver of matching requirement for certain small colleges and universities.

### **Subtitle E—Other Existing Laws**

- Sec. 251. Findings, authorities, and competitive research grants under Forest and Rangeland Renewable Resources Research Act of 1978.

## **TITLE III—EXTENSION OR REPEAL OF RESEARCH, EXTENSION, AND EDUCATION INITIATIVES**

### **Subtitle A—Extensions**

- Sec. 301. National Research Initiative under Competitive, Special, and Facilities Research Grant Act.  
 Sec. 302. Equity in Educational Land-Grant Status Act of 1994.  
 Sec. 303. Education grants programs for Hispanic-serving institutions.  
 Sec. 304. General authorization for agricultural research programs.  
 Sec. 305. General authorization for extension education.  
 Sec. 306. Grants and fellowships for food and agricultural sciences education.  
 Sec. 307. Grants for research on the production and marketing of alcohols and industrial hydrocarbons from agricultural commodities and forest products.  
 Sec. 308. Policy research centers.  
 Sec. 309. Human nutrition intervention and health promotion research program.  
 Sec. 310. Pilot research program to combine medical and agricultural research.  
 Sec. 311. Food and nutrition education program.  
 Sec. 312. Animal health and disease continuing research.  
 Sec. 313. Animal health and disease national or regional research.  
 Sec. 314. Grant program to upgrade agricultural and food sciences facilities at 1890 land-grant colleges.  
 Sec. 315. National research and training centennial centers.  
 Sec. 316. Supplemental and alternative crops research.  
 Sec. 317. Aquaculture research and extension.  
 Sec. 318. Rangeland research.  
 Sec. 319. Federal agricultural research facilities.  
 Sec. 320. Water quality research, education, and coordination.  
 Sec. 321. National genetics resources program.  
 Sec. 322. Agricultural telecommunications program.  
 Sec. 323. Assistive technology program for farmers with disabilities.  
 Sec. 324. National Rural Information Center Clearinghouse.  
 Sec. 325. Critical Agricultural Materials Act.

### **Subtitle B—Repeals**

- Sec. 341. Aquaculture research facilities.  
 Sec. 342. Agricultural research program under National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1981.  
 Sec. 343. Livestock product safety and inspection program.  
 Sec. 344. Generic authorization of appropriations.

## **TITLE IV—NEW RESEARCH, EXTENSION, AND EDUCATION INITIATIVES**

### **Subtitle A—Partnerships for High-Value Agricultural Product Quality Research**

- Sec. 401. Definitions.  
 Sec. 402. Establishment and characteristics of partnerships.  
 Sec. 403. Elements of grant making process.  
 Sec. 404. Authorization of appropriations and related provisions.

### **Subtitle B—Precision Agriculture**

- Sec. 411. Definitions.  
 Sec. 412. Competitive grants to promote precision agriculture.  
 Sec. 413. Reservation of funds for education and information dissemination projects.  
 Sec. 414. Precision agriculture partnerships.  
 Sec. 415. Miscellaneous provisions.  
 Sec. 416. Authorization of appropriations.

### **Subtitle C—Other Initiatives**

- Sec. 421. High-priority research and extension initiatives.

- Sec. 422. Organic agriculture research and extension initiative.
- Sec. 423. United States-Mexico joint agricultural research.
- Sec. 424. Competitive grants for international agricultural science and education programs.
- Sec. 425. Food animal residue avoidance database program.
- Sec. 426. Development and commercialization of new biobased products.
- Sec. 427. Thomas Jefferson Initiative for Crop Diversification.
- Sec. 428. Integrated research, education, and extension competitive grants program.
- Sec. 429. Research grants under Equity in Educational Land-Grant Status Act of 1994.

#### TITLE V—MISCELLANEOUS PROVISIONS

- Sec. 501. Role of Secretary of Agriculture regarding food and agricultural sciences research, education, and extension.
- Sec. 502. Office of Pest Management Policy.
- Sec. 503. Food Safety Research Information Office and national conference.
- Sec. 504. Nutrient composition data.
- Sec. 505. Availability of funds received or collected on behalf of National Arboretum.
- Sec. 506. Retention and use of Agricultural Research Service patent culture collection fees.
- Sec. 507. Reimbursement of expenses incurred under Sheep Promotion, Research, and Information Act of 1994.
- Sec. 508. Sense of Congress regarding Agricultural Research Service emphasis on in field research regarding methyl bromide alternatives.
- Sec. 509. Sense of Congress regarding importance of school-based agricultural education.
- Sec. 510. Sense of Congress regarding designation of Department Crisis Management Team.

## **TITLE I—COORDINATION, PLANNING, AND DEFINITIONS REGARDING AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION**

### **SEC. 101. PRIORITIES AND MANAGEMENT PRINCIPLES FOR FEDERALLY SUPPORTED AND CONDUCTED AGRICULTURAL RESEARCH, EDUCATION, AND EXTENSION.**

(a) **PRIORITY SETTING PROCESS.**—Section 1402 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3101) is amended—  
 (1) by inserting “(a) PURPOSES.” before “The purposes”; and  
 (2) by adding at the end the following new subsection:

“(b) **PRIORITY SETTING PROCESS.**—Consistent with subsection (a), the Secretary shall establish priorities for agricultural research, extension, and education activities conducted or funded by the Department. In establishing such priorities, the Secretary shall solicit and consider input and recommendations from the Advisory Board and persons who conduct or use agricultural research, extension, or education.”

(b) **MANAGEMENT PRINCIPLES.**—Such section is further amended by adding after subsection (b), as added by subsection (a)(2), the following new subsection:

“(c) **MANAGEMENT PRINCIPLES.**—To the maximum extent practicable, the Secretary shall ensure that agricultural research, education, and extension activities conducted or funded by the Department are accomplished in a manner that—

“(1) integrates agricultural research, education, and extension functions to better link research to technology transfer and information dissemination activities;

“(2) encourages multi-State and multi-institutional programs to address relevant issues of common concern and to better leverage scarce resources; and

“(3) achieves agricultural research, education, and extension objectives through multi-institutional and multifunctional approaches and by conducting research at facilities and institutions best equipped to achieve those objectives.”

(c) **CLERICAL AMENDMENT.**—The heading of such section is amended by inserting “priorities, and management principles” after “purposes”.

### **SEC. 102. PRINCIPAL DEFINITIONS REGARDING AGRICULTURAL RESEARCH, EDUCATION, AND EXTENSION.**

(a) **FOOD AND AGRICULTURAL SCIENCES.**—Paragraph (8) of section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3103) is amended to read as follows:

“(8) **FOOD AND AGRICULTURAL SCIENCES.**—The term ‘food and agricultural sciences’ means basic, applied, and developmental research, extension, and teaching activities in food and fiber, agricultural, renewable natural resources, forestry, and physical and social sciences, including (but not limited to) activities relating to the following:

“(A) Animal health, production, and well-being.

“(B) Plant health and production.

“(C) Animal and plant germ plasm collection and preservation.

“(D) Aquaculture.

“(E) Food safety.

“(F) Soil and water conservation and improvement.

- "(G) Forestry, horticulture, and range management.
- "(H) Nutritional sciences and promotion.
- "(I) Farm enhancement, including financial management, input efficiency, and profitability.
- "(J) Home economics.
- "(K) Rural human ecology.
- "(L) Youth development and agricultural education, including 4-H.
- "(M) Expansion of domestic and international markets for agricultural commodities and products, including agricultural trade barrier identification and comprehension.
- "(N) Information management and technology transfer related to agriculture.
- "(O) Biotechnology related to agriculture."

(b) REFERENCES TO TEACHING OR EDUCATION.—Paragraph (14) of such section is amended by striking "the term 'teaching' means" and inserting "TEACHING AND EDUCATION.—The terms 'teaching' and 'education' mean".

(c) APPLICATION OF DEFINITIONS TO AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION.—Such section is further amended by striking the section heading and all that follows through the matter preceding paragraph (1) and inserting the following:

**"SEC. 1404. PRINCIPAL DEFINITIONS REGARDING AGRICULTURAL RESEARCH, EDUCATION, AND EXTENSION.**

"When used in this title or any other law relating to any research, extension, or education activities of the Department of Agriculture regarding the food and agricultural sciences (unless the context requires otherwise):".

(d) IN-KIND SUPPORT.—Such section is further amended by adding at the end the following new paragraph:

"(18) IN-KIND SUPPORT.—The term 'in-kind support', with regard to a requirement that the recipient of funds provided by the Secretary match all or some portion of the amount of the funds, means contributions such as office space, equipment, and staff support."

(e) CONFORMING AMENDMENTS.—Such section is further amended—

(1) by striking "the term" in paragraphs (1), (2), (3), (5), (6), (7), (10) through (13), and (15), (16), and (17) and inserting "The term";

(2) in paragraph (4), by striking "the terms" and inserting "The terms";

(3) in paragraph (9), by striking "the term" the first place it appears and inserting "The term";

(4) by striking the semicolon at the end of paragraphs (1) through (7) and (9) through (15) and inserting a period; and

(5) in paragraph (16)(F), by striking ";" and" and inserting a period.

**SEC. 103. CONSULTATION WITH NATIONAL AGRICULTURAL RESEARCH, EXTENSION, EDUCATION, AND ECONOMICS ADVISORY BOARD.**

Subsection (d) of section 1408 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3123) is amended to read as follows:

(d) CONSULTATION.—

"(1) AS AFFECTING ADVISORY BOARD.—In carrying out this section, the Advisory Board shall solicit opinions and recommendations from persons who will benefit from and use federally funded agricultural research, extension, education, and economics.

"(2) AS AFFECTING SECRETARY.—To comply with a provision of this title or any other law that requires the Secretary to consult or cooperate with the Advisory Board or that authorizes the Advisory Board to submit recommendations to the Secretary, the Secretary shall—

"(A) solicit the written opinions and recommendations of the Advisory Board; and

"(B) provide a written response to the Advisory Board regarding the manner and extent to which the Secretary will implement recommendations submitted by the Advisory Board.".

**SEC. 104. RELEVANCE AND MERIT OF FEDERALLY FUNDED AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION.**

(a) REVIEW OF RELEVANCE AND MERIT.—Subtitle K of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 is amended by inserting before section 1463 (7 U.S.C. 3311) the following new section:

**"SEC. 1461. RELEVANCE AND MERIT OF FEDERALLY FUNDED AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION."**

**"(a) REVIEW OF COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE.—**

"(1) PEER REVIEW OF RESEARCH GRANTS.—The Secretary shall establish procedures that provide for scientific peer review of each agricultural research grant administered, on a competitive basis, by the Cooperative State Research, Education, and Extension Service of the Department.

"(2) MERIT REVIEW OF EXTENSION AND EDUCATION.—The Secretary shall establish procedures that provide for merit review of each agricultural extension or education grant administered, on a competitive basis, by the Cooperative State Research, Education, and Extension Service. The Secretary shall consult with the Advisory Board in establishing such merit review procedures.

"(b) REQUESTS FOR PROPOSALS: REQUEST AND CONSIDERATION OF INPUT.—When formulating a request for proposals involving an agricultural research, extension, or education activity to be funded by the Secretary on a competitive basis, the Secretary shall solicit and consider input from the Advisory Board and users of agricultural research, extension, and education regarding the request for proposals for the preceding year. If an agricultural research, extension, or education activity has not been the subject of a previous request for proposals, the Secretary shall solicit and consider input from the Advisory Board and users of agricultural research, extension, and education before publication of the first request for proposals regarding the activity.

**"(c) SCIENTIFIC PEER REVIEW OF AGRICULTURAL RESEARCH.—**

"(1) PEER REVIEW PROCEDURES.—The Secretary shall establish procedures that ensure scientific peer review of all research activities conducted by the Department of Agriculture.

"(2) REVIEW PANEL REQUIRED.—As part of the procedures established under paragraph (1), a review panel shall verify, at least once every three years, that each research activity of the Department and research conducted under each research program of the Department have scientific merit and relevance. If the research activity or program to be reviewed is included in the research, educational, and economics mission area of the Department, the review panel shall consider—

"(A) the scientific merit and relevance of the activity or research in light of the priorities established pursuant to section 1402(b); and

"(B) the national or multi-State significance of the activity or research.

"(3) COMPOSITION OF REVIEW PANEL.—A review panel shall be composed of individuals with scientific expertise, a majority of whom are not employees of the agency whose research is being reviewed. To the extent possible, the Secretary shall use scientists from colleges and universities to serve on the review panels.

"(4) SUBMISSION OF RESULTS.—The results of the panel reviews shall be submitted to the Advisory Board.

"(5) APPLICABILITY OF OTHER LAWS.—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of this Act (7 U.S.C. 2281 et seq.) shall not apply to a review panel.

**"(d) MERIT REVIEW OF COLLEGE AND UNIVERSITY RESEARCH AND EXTENSION ACTIVITIES.—**

"(1) LAND-GRANT INSTITUTIONS.—Effective beginning October 1, 1998, to be eligible to obtain agricultural research or extension funds from the Secretary for an activity, a land-grant college or university shall—

"(A) establish a process for merit review of the activity; and

"(B) review the activity in accordance with the process.

"(2) 1994 INSTITUTIONS.—Effective beginning October 1, 1998, to obtain agricultural extension funds from the Secretary for an activity, each 1994 Institution (as defined in section 532 of the Equity in Educational Land-Grant Status Act of 1994 (Public Law 103-382; 7 U.S.C. 301 note)) shall—

"(A) establish a process for merit review of the activity; and

"(B) review the activity in accordance with the process."

**(b) REPEAL OF PROVISIONS FOR WITHHOLDING FUNDS.—**

(1) SMITH-LEVER ACT.—Section 6 of the Smith-Lever Act (7 U.S.C. 346) is repealed.

(2) HATCH ACT OF 1887.—Section 7 of the Hatch Act of 1887 (7 U.S.C. 361g) is amended by striking the last paragraph.

(3) NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT OF 1977.—The National Agricultural Research, Extension, and Teaching Policy Act of 1977 is amended—

(A) in section 1444 (7 U.S.C. 3221)—

- (i) by striking subsection (f); and
- (ii) by redesignating subsection (g) as subsection (f);
- (B) in section 1445(g) (7 U.S.C. 3222(g)), by striking paragraph (3); and
- (C) by striking section 1468 (7 U.S.C. 3314).

**SEC. 105. EXPANSION OF AUTHORITY TO ENTER INTO COST-REIMBURSABLE AGREEMENTS.**

Section 1473A of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3319a) is amended in the first sentence by inserting "or other colleges and universities" after "institutions".

**SEC. 106. EVALUATION AND ASSESSMENT OF AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION PROGRAMS.**

(a) **EVALUATION.**—The Secretary shall conduct a performance evaluation to determine whether agricultural research, extension, and education programs conducted or funded by the Department of Agriculture result in public benefits that have national or multi-State significance.

(b) **GUIDELINES FOR PERFORMANCE MEASUREMENT.**—The Secretary shall develop practical guidelines for measuring the performance of agricultural research, extension and education programs evaluated under subsection (a).

## **TITLE II—REFORM OF EXISTING RESEARCH, EXTENSION, AND EDUCATION AUTHORITIES**

### **Subtitle A—Smith-Lever Act and Hatch Act of 1887**

**SEC. 201. ADOPTION OF SHORT TITLES FOR SMITH-LEVER ACT AND HATCH ACT OF 1887.**

(a) **SMITH-LEVER ACT.**—The Act of May 8, 1914 (commonly known as the Smith-Lever Act; 7 U.S.C. 341 et seq.), is amended by adding at the end the following new section:

**"SEC. 11. SHORT TITLE.**

"This Act may be cited as the 'Smith-Lever Act'."

(b) **HATCH ACT OF 1887.**—The Act of March 2, 1887 (commonly known as the Hatch Act of 1887; 7 U.S.C. 361a et seq.), is amended by adding at the end the following new section:

**"SEC. 10. SHORT TITLE.**

"This Act may be cited as the 'Hatch Act of 1887'."

(c) **COORDINATION WITH OTHER AMENDMENTS.**—For purposes of executing amendments made by provisions of this Act (other than this section), this section shall be treated as having been enacted immediately before the other provisions of this Act.

**SEC. 202. CONSISTENT MATCHING FUNDS REQUIREMENTS UNDER HATCH ACT OF 1887 AND SMITH-LEVER ACT.**

(a) **HATCH ACT OF 1887.**—Subsection (d) of section 3 of the Hatch Act of 1887 (7 U.S.C. 361c) is amended to read as follows:

**"(d) MATCHING FUNDS.—**

"(1) **REQUIREMENT.**—Except as provided in paragraph (4), no allotment shall be made to a State under subsections (b) and (c), and no payments of such allotment shall be made to a State, in excess of the amount which the State makes available out of non-Federal funds for agricultural research and for the establishment and maintenance of facilities for the performance of such research.

"(2) **FAILURE TO PROVIDE MATCHING FUNDS.**—If a State fails to comply with the requirement to provide matching funds for a fiscal year under paragraph (1), the Secretary of Agriculture shall withhold from payment to the State for that fiscal year an amount equal to the difference between—

"(A) the amount that would be allotted and paid to the State under subsections (b) and (c) (if the full amount of matching funds were provided by the State); and

"(B) the amount of matching funds actually provided by the State.

"(3) **REAPPORTIONMENT.**—The Secretary shall reapportion amounts withheld under paragraph (2) for a fiscal year among the States satisfying the matching requirement for that fiscal year. Any reapportionment of funds under this paragraph shall be subject to the matching requirement specified in paragraph (1).

"(4) **EXCEPTION.**—Paragraph (1) shall not apply to funds provided to a State from the Regional research fund, State agricultural experiment stations."

(b) SMITH-LEVER ACT.—Section 3 of the Smith-Lever Act (7 U.S.C. 343) is amended—

(1) in subsection (c)2, by striking “That payments” and all that follows through “Provided further,”; and

(2) by striking subsections (e) and (f) and inserting the following new subsections:

**(e) MATCHING FUNDS.—**

“(1) REQUIREMENT.—No allotment shall be made to a State under subsections (b) and (c), and no payments of such allotment shall be made to a State, in excess of the amount which the State makes available out of non-Federal funds for cooperative extension work.

“(2) FAILURE TO PROVIDE MATCHING FUNDS.—If a State fails to comply with the requirement to provide matching funds for a fiscal year under paragraph (1), the Secretary of Agriculture shall withhold from payment to the State for that fiscal year an amount equal to the difference between—

“(A) the amount that would be allotted and paid to the State under subsections (b) and (c) (if the full amount of matching funds were provided by the State); and

“(B) the amount of matching funds actually provided by the State.

“(3) REAPPORTIONMENT.—The Secretary shall reapportion amounts withheld under paragraph (2) for a fiscal year among the States satisfying the matching requirement for that fiscal year. Any reapportionment of funds under this paragraph shall be subject to the matching requirement specified in paragraph (1).

**(f) MATCHING FUNDS EXCEPTION FOR 1994 INSTITUTIONS.—**There shall be no matching requirement for funds made available to 1994 Institutions pursuant to subsection (b)(3).

**(c) TECHNICAL CORRECTIONS.—**

(1) RECOGNITION OF STATEHOOD OF ALASKA AND HAWAII.—Section 1 of the Hatch Act of 1887 (7 U.S.C. 361a) is amended by striking “Alaska, Hawaii.”.

(2) ROLE OF SECRETARY OF AGRICULTURE.—Section 3 of the Smith-Lever Act (7 U.S.C. 343) is amended—

(A) in subsection (b)(1), by striking “Federal Extension Service” and inserting “Secretary of Agriculture”;

(B) in subsection (c)1, by striking “Federal Extension Service” and inserting “Secretary of Agriculture”;

(C) in subsection (d), by striking “Federal Extension Service” and inserting “Secretary of Agriculture”; and

(D) in subsection (g)(1), by striking “through the Federal Extension Service”.

(3) REFERENCES TO REGIONAL RESEARCH FUND.—The Hatch Act of 1887 is amended—

(A) in section 3 (7 U.S.C. 361c)—

(i) in subsection (b)(1), by striking “subsection 3(c)(3)” and inserting “subsection (c)3”; and

(ii) in subsection (e), by striking “subsection 3(c)3” and inserting “subsection (c)3”; and

(B) in section 5 (7 U.S.C. 361e), by striking “regional research fund authorized by subsection 3(c)(3)” and inserting “Regional research fund, State agricultural experiment stations”.

**SEC. 203. PLANS OF WORK TO ADDRESS CRITICAL RESEARCH AND EXTENSION ISSUES AND USE OF PROTOCOLS TO MEASURE SUCCESS OF PLANS.**

(a) SMITH-LEVER ACT.—Section 4 of the Smith-Lever Act (7 U.S.C. 344) is amended—

(1) by striking “SEC. 4.” and inserting the following:

**SEC. 4. ASCERTAINMENT OF ENTITLEMENT OF STATE TO FUNDS, TIME AND MANNER OF PAYMENT, STATE REPORTING REQUIREMENTS, AND PLANS FOR WORK.**

“(a) ASCERTAINMENT OF ENTITLEMENT.—”;

(2) in the last sentence, by striking “Such sums” and inserting the following:

“(b) TIME AND MANNER OF PAYMENT; RELATED REPORTS.—The amount to which a State is entitled”; and

(3) by adding at the end the following new subsections:

“(c) REQUIREMENTS RELATED TO PLAN OF WORK.—Each extension plan of work for a State required under subsection (a) shall contain descriptions of the following:

“(1) The critical short-term, intermediate, and long-term agricultural issues in the State and the current and planned extension programs and projects targeted to address such issues.

"(2) The process established to consult with extension users regarding the identification of critical agricultural issues in the State and the development of extension programs and projects targeted to address such issues.

"(3) The efforts made to identify and collaborate with other colleges and universities within the State and other States that have unique capacity to address the identified agricultural issues in the State and current and emerging efforts to work with these other institutions and States.

"(4) The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.

"(5) The education and outreach programs already underway to convey currently available research results that are pertinent to a critical agricultural issue, including efforts to encourage multi-county cooperation in the dissemination of research results.

"(d) EXTENSION PROTOCOLS.—The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary extension activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under subsection (a). The Secretary shall develop the protocols in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board and land-grant colleges and universities.

"(e) TREATMENT OF PLANS OF WORK FOR OTHER PURPOSES.—To the extent practicable, the Secretary shall consider plans of work submitted under subsection (a) to satisfy other appropriate Federal reporting requirements."

(b) HATCH ACT OF 1887.—Section 7 of the Hatch Act of 1887 (7 U.S.C. 361g), as amended by section 104(b), is further amended—

(1) by striking "SEC. 7." and inserting the following:

**"SEC. 7. DUTIES OF SECRETARY, ASCERTAINMENT OF ENTITLEMENT OF STATE TO FUNDS, AND PLANS FOR WORK.**

"(a) DUTIES OF SECRETARY.—";

(2) by striking "On or before" and inserting the following:

"(b) ASCERTAINMENT OF ENTITLEMENT.—On or before";

(3) by striking "Whenever it shall appear" and inserting the following:

"(c) EFFECT OF FAILURE TO EXPEND FULL ALLOTMENT.—Whenever it shall appear"; and

(4) by adding at the end the following new subsections:

"(d) PLAN OF WORK REQUIRED.—Before funds may be provided to a State under this Act for any fiscal year, plans for the work to be carried on under this Act shall be submitted by the proper officials of the State and approved by the Secretary of Agriculture.

"(e) REQUIREMENTS RELATED TO PLAN OF WORK.—Each research plan of work for a State required under subsection (d) shall contain descriptions of the following:

"(1) The critical short-term, intermediate, and long-term agricultural issues in the State and the current and planned research programs and projects targeted to address such issues.

"(2) The process established to consult with users of agricultural research regarding the identification of critical agricultural issues in the State and the development of research programs and projects targeted to address such issues.

"(3) The efforts made to identify and collaborate with other colleges and universities within the State and other States that have unique capacity to address the identified agricultural issues in the State and current and emerging efforts (including regional efforts) to work with these other institutions and States.

"(4) The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.

"(f) RESEARCH PROTOCOLS.—The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary research activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under subsection (d). The Secretary shall develop the protocols in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board and land-grant colleges and universities.

**"(g) TREATMENT OF PLANS OF WORK FOR OTHER PURPOSES.**—To the extent practicable, the Secretary shall consider plans of work submitted under subsection (d) to satisfy other appropriate Federal reporting requirements.”.

**(c) EFFECTIVE DATE.—**

**(1) IN GENERAL.**—The amendments made by this section shall take effect on October 1, 1998.

**(2) DELAYED APPLICABILITY.**—With respect to a particular State, the Secretary of Agriculture may delay the applicability of the requirements imposed by the amendments made by this section until not later than October 1, 1999, if the Secretary finds that the State will be unable to meet such requirements by October 1, 1998, despite the good faith efforts of the State.

## **Subtitle B—National Agricultural Research, Extension, and Teaching Policy Act of 1977**

### **SEC. 211. PLANS OF WORK FOR 1890 LAND-GRANT COLLEGES TO ADDRESS CRITICAL RESEARCH AND EXTENSION ISSUES AND USE OF PROTOCOLS TO MEASURE SUCCESS OF PLANS.**

**(a) EXTENSION AT 1890 INSTITUTIONS.**—Section 1444(d) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3221(d)) is amended—

(1) by striking “(d)” and inserting the following:

**“(d) ASCERTAINMENT OF ENTITLEMENT TO FUNDS; TIME AND MANNER OF PAYMENT; STATE REPORTING REQUIREMENTS; AND PLANS FOR WORK.—**

“(1) ASCERTAINMENT OF ENTITLEMENT.—”;

(2) in the last sentence, by striking “Such sums” and inserting the following:

“(2) TIME AND MANNER OF PAYMENT; RELATED REPORTS.—The amount to which an eligible institution is entitled”; and

(3) by adding at the end the following new paragraphs:

“(3) REQUIREMENTS RELATED TO PLAN OF WORK.—Each extension plan of work for an eligible institution required under this section shall contain descriptions of the following:

“(A) The critical short-term, intermediate, and long-term agricultural issues in the State in which the eligible institution is located and the current and planned extension programs and projects targeted to address such issues.

“(B) The process established to consult with extension users regarding the identification of critical agricultural issues in the State and the development of extension programs and projects targeted to address such issues.

“(C) The efforts made to identify and collaborate with other colleges and universities within the State and other States that have unique capacity to address the identified agricultural issues in the State and current and emerging efforts (including regional research efforts) to work with these other institutions and States.

“(D) The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.

“(E) The education and outreach programs already underway to convey currently available research results that are pertinent to a critical agricultural issue, including efforts to encourage multi-county cooperation in the dissemination of research results.

“(4) EXTENSION PROTOCOLS.—The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary extension activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under this section. The Secretary shall develop the protocols in consultation with the Advisory Board and land-grant colleges and universities.

“(5) TREATMENT OF PLANS OF WORK FOR OTHER PURPOSES.—To the extent practicable, the Secretary shall consider plans of work submitted under this section to satisfy other appropriate Federal reporting requirements.”.

**(b) AGRICULTURAL RESEARCH AT 1890 INSTITUTIONS.**—Section 1445(c) of such Act (7 U.S.C. 3222(c)) is amended—

(1) by striking “(c)” and inserting the following:

“(c) PROGRAM AND PLANS FOR WORK.—

"(1) INITIAL COMPREHENSIVE PROGRAM OF AGRICULTURAL RESEARCH.—"; and  
 (2) by adding at the end the following new paragraphs:

"(2) PLAN OF WORK REQUIRED.—Before funds may be provided to an eligible institution under this section for any fiscal year, plans for the work to be carried on under this section shall be submitted by the research director specified in subsection (d) and approved by the Secretary of Agriculture.

"(3) REQUIREMENTS RELATED TO PLAN OF WORK.—Each research plan of work required under paragraph (2) shall contain descriptions of the following:

"(A) The critical short-term, intermediate, and long-term agricultural issues in the State in which the eligible institution is located and the current and planned research programs and projects targeted to address such issues.

"(B) The process established to consult with users of agricultural research regarding the identification of critical agricultural issues in the State and the development of research programs and projects targeted to address such issues.

"(C) Other colleges and universities in the State and other States that have unique capacity to address the identified agricultural issues in the State.

"(D) The current and emerging efforts to work with these other institutions and States to build on each other's experience and take advantage of each institution's unique capacities.

"(E) The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.

"(4) RESEARCH PROTOCOLS.—The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary research activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under paragraph (2). The Secretary shall develop the protocols in consultation with the Advisory Board and land-grant colleges and universities."

(c) EFFECTIVE DATE.—

(1) IN GENERAL.—The amendments made by this section shall take effect on October 1, 1998.

(2) DELAYED APPLICABILITY.—With respect to a particular eligible institution (as described in sections 1444(a) and 1445(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3221(a), 3222(a))), the Secretary of Agriculture may delay the applicability of the requirements imposed by the amendments made by this section until not later than October 1, 1999, if the Secretary finds that the eligible institution will be unable to meet such requirements by October 1, 1998, despite the good faith efforts of the eligible institution.

**SEC. 212. MATCHING FUNDS REQUIREMENT FOR RESEARCH AND EXTENSION ACTIVITIES AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY.**

(a) IMPOSITION OF REQUIREMENT.—Subtitle G of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 is amended by inserting after section 1448 (7 U.S.C. 3222c) the following new section:

**"SEC. 1449. MATCHING FUNDS REQUIREMENT FOR RESEARCH AND EXTENSION ACTIVITIES AT ELIGIBLE INSTITUTIONS.**

"(a) DEFINITIONS.—In this section:

"(1) ELIGIBLE INSTITUTION.—The term 'eligible institution' means a college eligible to receive funds under the Act of August 30, 1890 (7 U.S.C. 321 et seq.) (commonly known as the Second Morrill Act), including Tuskegee University.

"(2) FORMULA FUNDS.—The term 'formula funds' means the formula allocation funds distributed to eligible institutions under sections 1444 and 1445.

"(b) DETERMINATION OF NON-FEDERAL SOURCES OF FUNDS.—Not later than September 30, 1999, each eligible institution shall submit to the Secretary a report describing for fiscal year 1999 the sources of non-Federal funds available to the eligible institution and the amount of funds generally available from each such source.

"(c) MATCHING FORMULA.—Notwithstanding any other provision of this subtitle, the distribution of formula funds to an eligible institution shall be subject to the following matching requirements:

"(1) In fiscal year 2000, the institution shall provide matching funds from non-Federal sources in an amount equal to not less than 30 percent of the formula funds to be distributed to the eligible institution.

"(2) In fiscal year 2001, the institution shall provide matching funds from non-Federal sources in an amount equal to not less than 45 percent of the formula funds to be distributed to the eligible institution.

"(3) In fiscal year 2002, and each fiscal year thereafter, the institution shall provide matching funds from non-Federal sources in an amount equal to not less than 50 percent of the formula funds to be distributed to the eligible institution.

"(d) LIMITED WAIVER AUTHORITY.—Notwithstanding subsection (f), the Secretary may waive the matching funds requirement under subsection (c)(1) for fiscal year 2000 if the Secretary determines with regard to a particular eligible institution, based on the report received under subsection (b), that the eligible institution will be unlikely to satisfy the matching requirement. The waiver of the matching requirements for subsequent fiscal years is not permitted.

"(e) USE OF MATCHING FUNDS.—Under terms and conditions established by the Secretary, matching funds provided as required by subsection (c) may be used by an eligible institution for research, education, and extension activities.

"(f) REDISTRIBUTION OF FUNDS.—Federal funds that are not matched by an eligible institution in accordance with subsection (c) for a fiscal year shall be redistributed by the Secretary to eligible institutions satisfying the matching funds requirement for that fiscal year. Any redistribution of funds under this subsection shall be subject to the applicable matching requirement specified in subsection (c) and shall be made in a manner consistent with sections 1444 and 1445, as determined by the Secretary."

(b) CONFORMING AMENDMENT.—Section 1445(g) of such Act (7 U.S.C. 3222(g)) is amended—

(1) by striking paragraph (2); and

(2) by redesignating paragraph (4) as paragraph (2).

(c) REFERENCES TO TUSKEGEE UNIVERSITY.—Such Act is further amended—

(1) in section 1404 (7 U.S.C. 3103), by striking "Tuskegee Institute" in paragraphs (10) and (16)(B) and inserting "Tuskegee University";

(2) in section 1444 (7 U.S.C. 3221)—

(A) by striking the section heading and "SEC. 1444." and inserting the following:

**"SEC. 1444. EXTENSION AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY."**; and

(B) in subsections (a) and (b), by striking "Tuskegee Institute" both places it appears and inserting "Tuskegee University"; and

(3) in section 1445 (7 U.S.C. 3222)—

(A) by striking the section heading and "SEC. 1445." and inserting the following:

**"SEC. 1445. AGRICULTURAL RESEARCH AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY."**; and

(B) in subsections (a) and (b)(2)(B), by striking "Tuskegee Institute" both places it appears and inserting "Tuskegee University".

**SEC. 213. INTERNATIONAL RESEARCH, EXTENSION, AND TEACHING.**

(a) INCLUSION OF TEACHING.—Section 1458 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3291) is amended—

(1) in the section heading, by striking "research and extension" and inserting "research, extension, and teaching";

(2) in subsection (a)—

(A) in paragraph (1)—

(i) by striking "related research and extension" and inserting "related research, extension, and teaching"; and

(ii) in subparagraph (B), by striking "research and extension on" and inserting "research, extension, and teaching activities addressing";

(B) in paragraphs (2) and (6), by striking "education" and inserting "teaching";

(C) in paragraph (4), by striking "scientists and experts" and inserting "science and education experts";

(D) in paragraph (5), by inserting "teaching," after "development,";

(E) in paragraph (7), by striking "research and extension that is" and inserting "research, extension, and teaching programs"; and

(F) in paragraph (8), by striking "research capabilities" and inserting "research, extension, and teaching capabilities"; and

(3) in subsection (b), by striking "counterpart agencies" and inserting "counterpart research, extension, and teaching agencies".

(b) FULL PAYMENT OF FUNDS MADE AVAILABLE FOR CERTAIN BINATIONAL PROJECT.—Such section is further amended by adding at the end the following new subsection:

“(d) FULL PAYMENT OF FUNDS MADE AVAILABLE FOR CERTAIN BINATIONAL PROJECTS.—Notwithstanding any other provision of law, the full amount of any funds appropriated or otherwise made available to carry out cooperative projects under the arrangement entered into between the Secretary and the Government of Israel to support the Israel-United States Binational Agricultural Research and Development Fund shall be paid directly to the Fund.”

(c) CONFORMING AMENDMENT.—The subtitle heading of subtitle I of title XIV of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3291 et seq.) is amended to read as follows:

## **“Subtitle I—International Research, Extension, and Teaching”.**

### **SEC. 214. TASK FORCE ON 10-YEAR STRATEGIC PLAN FOR AGRICULTURAL RESEARCH FACILITIES.**

(a) TRANSFER OF EXISTING PROVISION.—Section 4 of the Research Facilities Act (7 U.S.C. 390b)—

- (1) is transferred to the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3101 et seq.);
- (2) is redesignated as section 1473B;
- (3) is inserted after section 1473A of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3319a); and
- (4) is amended in subsection (f), by striking “Notwithstanding section 2(1), in” and inserting “In”.

(b) CONFORMING REPEAL.—The Research Facilities Act (7 U.S.C. 390 et seq.) is repealed.

## **Subtitle C—Food, Agriculture, Conservation, and Trade Act of 1990**

### **SEC. 231. NATIONAL AGRICULTURAL WEATHER INFORMATION SYSTEM.**

Subtitle D of title XVI of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5851–5855) is amended to read as follows:

## **“Subtitle D—National Agricultural Weather Information System**

### **“SEC. 1637. SHORT TITLE; PURPOSES.**

“(a) SHORT TITLE.—This subtitle may be cited as the ‘National Agricultural Weather Information System Act of 1997’.

“(b) PURPOSES.—The purposes of this subtitle are—

- “(1) to facilitate the management and coordination of a national agricultural weather and climate station network for Federal and State agencies, colleges and universities, and the private sector;
- “(2) to ensure that timely and accurate information is obtained and disseminated; and
- “(3) to aid research and education that requires a comprehensive agricultural weather and climate database.

### **“SEC. 1638. AGRICULTURAL WEATHER SYSTEM.**

“(a) ESTABLISHMENT.—The Secretary of Agriculture may establish the National Agricultural Weather Information System (referred to in this subtitle as the ‘System’). The System shall be comprised of the operational and research activities of the Federal, State, and regional agricultural weather information systems.

“(b) AUTHORITY.—Notwithstanding chapter 63 of title 31, United States Code, to carry out this subtitle, the Secretary may—

- “(1) enter into contracts, grants, cooperative agreements and interagency agreements without regard to competitive requirements, except as otherwise provided in this subtitle, with other Federal and State agencies to—

- "(A) support operational weather and climate data observations, analysis, and derived products;
- "(B) preserve historical data records for research studies useful in agriculture;
- "(C) jointly develop improved computer models and computing capacity for storage, retrieval, dissemination and analysis of agricultural weather and climate information;
- "(D) enhance the quality and availability of weather and climate information needed by the private sector for value-added products and agriculturists for decisionmaking; and
- "(E) sponsor joint programs to train private sector meteorologists and agriculturists about the optimum use of agricultural weather and climate data;
- "(2) obtain standardized weather observation data collected in near real time through regional and State agricultural weather information systems;
- "(3) coordinate the activities of the Chief Meteorologist of the Department of Agriculture and weather and climate research activities of the Department of Agriculture with other Federal agencies and the private sector;
- "(4) make grants to plan and administer State and regional agricultural weather information systems, including research in atmospheric sciences and climatology;
- "(5) encourage private sector participation in the System through cooperation with the private sector, including cooperation in the generation of weather and climate data useful for site-specific agricultural weather forecasting; and
- "(6) make competitive grants to carry out research in all aspects of atmospheric sciences and climatology regarding the collection, retention, and dissemination of agricultural weather and climate observations and information, with priority given to proposals that emphasize—
  - "(A) techniques and processes that relate to—
    - "(i) weather- or climate-induced agricultural losses; and
    - "(ii) improvement of information on weather and climate extremes (such as drought, floods, freeze, and storms) well in advance of their occurrence;
  - "(B) the improvement of site-specific weather data collection and forecasting;
  - "(C) the impact of weather on economic and environmental costs in agricultural production; or
  - "(D) the preservation and management of the ecosystem.

**"SEC. 1639. FUNDING AND ADMINISTRATION.**

**"(a) USE OF FUNDS.—**

- "(1) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WORK.—Not more than  $\frac{2}{3}$  of the funds made available for a fiscal year to carry out this subtitle shall be used for work with the National Oceanic and Atmospheric Administration.
- "(2) ADMINISTRATIVE COSTS.—The Secretary of Agriculture may retain for administration of the System up to four percent of the amounts made available to carry out this subtitle, notwithstanding the availability of any appropriation for administrative expenses to carry out this subtitle.

**"(3) LIMITATIONS.—**

- "(A) BUILDINGS OR FACILITIES.—Funds made available to carry out this subtitle shall not be used for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.
- "(B) EQUIPMENT PURCHASES.—Of funds made available under a grant award under this subtitle, a grantee may use for equipment purchases not more than the lesser of—
  - "(i) \$15,000; or
  - "(ii)  $\frac{1}{3}$  of the amount of the grant award.

- "(b) APPLICABILITY OF OTHER LAWS.—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to a panel or board created for the purpose of reviewing applications or proposals submitted for grants under section 1638.

**"SEC. 1640. AUTHORIZATION OF APPROPRIATIONS.**

"There is authorized to be appropriated to carry out this subtitle \$15,000,000 for each of the fiscal years 1998 through 2002."

**SEC. 232. AGRICULTURAL GENOME INITIATIVE.**

(a) ESTABLISHMENT AND PURPOSE OF INITIATIVE.—Section 1671 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5924) is amended by striking the section heading and subsection (a) and inserting the following:

**"SEC. 1671. AGRICULTURAL GENOME INITIATIVE.**

"(a) PROGRAM REQUIRED.—The Secretary of Agriculture shall conduct a research initiative for the purpose of—

"(1) supporting basic and applied research and technology development in the area of genome structure and function in support of agriculturally important species, with a particular focus on research projects that will yield scientifically important results that will enhance the usefulness of many agriculturally important species;

"(2) studying and mapping agriculturally significant genes to achieve sustainable and secure agricultural production;

"(3) ensuring that current gaps in existing agricultural genetics knowledge are filled;

"(4) identifying and developing a functional understanding of genes responsible for economically important traits in agriculturally important species, including emerging plant and animal diseases causing economic hardship;

"(5) ensuring the future genetic improvement of agriculturally important species;

"(6) supporting the preservation of diverse germplasm; and

"(7) ensuring the preservation of biodiversity to maintain access to genes that may be of importance in the future.".

(b) COMPETITIVE GRANTS.—Subsection (b) of such section is amended by striking "subsection (c)" and inserting "subsection (a)".

(c) GRANT TYPES AND PROCESS; PROHIBITION ON CONSTRUCTION.—Subsection (c) of such section is amended to read as follows:

"(c) GRANT TYPES AND PROCESS; PROHIBITION ON CONSTRUCTION.—Paragraphs (6), (7), and (11) of subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) shall apply with respect to the making of grants under this section."

(d) MATCHING FUNDS.—Subsection (d) of such section is amended to read as follows:

**"(d) MATCHING OF FUNDS.—**

"(1) GENERAL REQUIREMENT.—If a grant under this section is to the particular benefit of a specific agricultural commodity, the Secretary shall require the recipient of the grant to provide funds or in-kind support to match the amount of funds provided by the Secretary in the grant.

"(2) WAIVER.—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a research project if the Secretary determines that—

"(A) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or

"(B) the project involves a minor commodity, deals with scientifically important research, and the grant recipient would be unable to satisfy the matching funds requirement.".

(e) AUTHORIZATION OF APPROPRIATIONS.—Subsection (g) of such section is amended by striking "fiscal years 1996 and 1997" and inserting "fiscal years 1998 through 2002".

## **Subtitle D—National Research Initiative**

**SEC. 241. WAIVER OF MATCHING REQUIREMENT FOR CERTAIN SMALL COLLEGES AND UNIVERSITIES.**

Subsection (b)(8)(B) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) is amended—

(1) by striking "the cost" and inserting "the cost of"; and

(2) by adding at the end the following new sentence: "The Secretary may waive all or a portion of the matching requirement under this subparagraph in the case of a smaller college or university (as described in subsection (c)(2)(C)(ii) of section 793 of the Federal Agriculture Improvement and Reform Act of 1996 (7 U.S.C. 2204f)) if the equipment to be acquired costs not more than \$25,000 and has multiple uses within a single research project or is usable in more than one research project.".

## Subtitle E—Other Existing Laws

### **SEC. 251. FINDINGS, AUTHORITIES, AND COMPETITIVE RESEARCH GRANTS UNDER FOREST AND RANGELAND RENEWABLE RESOURCES RESEARCH ACT OF 1978.**

(a) **FINDINGS.**—Section 2 of the Forest and Rangeland Renewable Resources Research Act of 1978 (16 U.S.C. 1641) is amended by striking “SEC. 2.” and subsection (a) and inserting the following:

#### **“SEC. 2. FINDINGS AND PURPOSE.**

“(a) **FINDINGS.**—Congress finds the following:

“(1) Forests and rangelands, and the resources of forests and rangelands, are of strategic economic and ecological importance to the United States, and the Federal Government has an important and substantial role in ensuring the continued health, productivity, and sustainability of the Nation's forests and rangelands.

“(2) Over 75 percent of the productive commercial forest land in the United States is in private ownership, with some 60 percent owned by small nonindustrial private owners. These 10,000,000 nonindustrial private owners are critical to providing both commodity and noncommodity values to the citizens of the United States.

“(3) The National Forest System manages only 17 percent of the Nation's commercial timberlands, with over half of the standing softwoods inventory located on those lands. Dramatic changes in Federal agency policy during the early 1990's have significantly curtailed the management of this vast timber resource, causing abrupt shifts in the supply of timber from public to private ownership. As a result of these shifts in supply, some 60 percent of total wood production in the United States is now coming from private forest lands in the southern United States.

“(4) At the same time that pressures are building for the removal of even more land from commercial production, the Federal Government is significantly reducing its commitment to productivity-related research regarding forests and rangelands, which is critically needed by the private sector for the sustained management of remaining available timber and forage resources for the benefit of all species.

“(5) Uncertainty over the availability of the United States timber supply, increasing regulatory burdens, and the lack of Federal Government support for research is causing domestic wood and paper producers to move outside the United States to find reliable sources of wood supplies, which in turns results in a worsening of the United States trade balance, the loss of employment and infrastructure investments, and an increased risk of infestations of exotic pests and diseases from imported wood products.

“(6) Wood and paper producers in the United States are being challenged not only by shifts in Government policy, but also by international competition from tropical countries where growth rates of trees far exceed those in the United States. Wood production per acre will need to quadruple from 1996 levels for the United States forestry sector to remain internationally competitive on an ever decreasing forest land base.

“(7) Better and more frequent forest inventorying and analysis is necessary to identify productivity-related forestry research needs and to provide forest managers with the current data necessary to make timely and effective management decisions.”

(b) **HIGH PRIORITY FORESTRY RESEARCH AND EDUCATION.**—Subsection (d) of section 3 of the Forest and Rangeland Renewable Resources Research Act of 1978 (16 U.S.C. 1642) is amended to read as follows:

“(d) **HIGH PRIORITY FORESTRY AND RANGELANDS RESEARCH AND EDUCATION.**—The Secretary may conduct, support, and cooperate in forestry and rangelands research and education that is of the highest priority to the United States and to users of public and private forest lands and rangelands in the United States. Such research and education priorities include the following:

“(1) The biology of forest organisms and rangeland organisms.

“(2) Functional characteristics and cost-effective management of forest and rangeland ecosystems.

“(3) Interactions between humans and forests and rangelands.

“(4) Wood and forage as a raw material.

“(5) International trade, competition, and cooperation.”

(c) FOREST INVENTORY AND ANALYSIS.—Section 3 of the Forest and Rangeland Renewable Resources Research Act of 1978 (16 U.S.C. 1642) is amended by adding at the end the following new subsection:

“(e) FOREST INVENTORY AND ANALYSIS.—

“(1) PROGRAM REQUIRED.—In compliance with existing statutory authority, the Secretary shall establish a program to inventory and analyze, in a timely manner, public and private forests and their resources in the United States.

“(2) ANNUAL STATE INVENTORY.—Not later than the end of each full fiscal year beginning after the date of the enactment of this subsection, the Secretary shall prepare for each State, in cooperation with the State forester for the State, an inventory of forests and their resources in the State. For purposes of preparing the inventory for a State, the Secretary shall measure annually 20 percent of all sample plots that are included in the inventory program for that State. Upon completion of the inventory for a year, the Secretary shall make available to the public a compilation of all data collected for that year from measurements of sample plots as well as any analysis made of such samples.

“(3) FIVE-YEAR REPORTS.—At intervals not greater than every five full fiscal years after the date of the enactment of this subsection, the Secretary shall prepare, publish, and make available to the public a report, prepared in cooperation with State foresters, that—

“(A) contains a description of each State inventory of forests and their resources, incorporating all sample plot measurements conducted during the five years covered by the report;

“(B) displays and analyzes on a nationwide basis the results of the annual reports required by paragraph (2); and

“(C) contains an analysis of forest health conditions and trends over the previous two decades, with an emphasis on such conditions and trends during the period subsequent to the immediately preceding report under this paragraph.

“(4) NATIONAL STANDARDS AND DEFINITIONS.—To ensure uniform and consistent data collection for all public and private forest ownerships and each State, the Secretary shall develop, in consultation with State foresters and Federal land management agencies not under the jurisdiction of the Secretary, and publish national standards and definitions to be applied in inventorying and analyzing forests and their resources under this subsection. The standards shall include a core set of variables to be measured on all sample plots under paragraph (2) and a standard set of tables to be included in the reports under paragraph (3).

“(5) PROTECTION FOR PRIVATE PROPERTY RIGHTS.—The Secretary shall obtain written authorization from property owners prior to collecting data from sample plots located on private property pursuant to paragraphs (2) and (3).

“(6) STRATEGIC PLAN.—Not later than 180 days after the date of the enactment of this subsection, the Secretary shall prepare and submit to Congress a strategic plan to implement and carry out this subsection, including the annual updates required by paragraph (2) and the reports required by paragraph (3), that shall describe in detail—

“(A) the financial resources required to implement and carry out this subsection, including the identification of any resources required in excess of the amounts provided for forest inventorying and analysis in recent appropriations Acts;

“(B) the personnel necessary to implement and carry out this subsection, including any personnel in addition to personnel currently performing inventorying and analysis functions;

“(C) the organization and procedures necessary to implement and carry out this subsection, including proposed coordination with Federal land management agencies and State foresters;

“(D) the schedules for annual sample plot measurements in each State inventory required by paragraph (2) within the first five-year interval after the date of the enactment of this subsection;

“(E) the core set of variables to be measured in each sample plot under paragraph (2) and the standard set of tables to be used in each State and national report under paragraph (3); and

“(F) the process for employing, in coordination with the Department of Energy and the National Aeronautics and Space Administration, remote sensing, global positioning systems, and other advanced technologies to carry out this subsection, and the subsequent use of such technologies.”.

(d) FORESTRY AND RANGELANDS COMPETITIVE RESEARCH GRANTS.—Section 5 of the Forest and Rangeland Renewable Resources Research Act of 1978 (16 U.S.C. 16442) is amended—

(1) by striking the section heading and “SEC. 5.” and inserting the following:

**“SEC. 5. FORESTRY AND RANGELANDS COMPETITIVE RESEARCH GRANTS.**

(a) COMPETITIVE GRANT AUTHORITY.—”; and

(2) by adding at the end the following new subsections:

(b) EMPHASIS ON CERTAIN HIGH PRIORITY FORESTRY RESEARCH.—The Secretary may use up to five percent of the amounts made available for research under section 3 to make competitive grants regarding forestry research in the high priority research areas identified in section 3(d).

(c) EMPHASIS ON CERTAIN HIGH PRIORITY RANGELANDS RESEARCH.—The Secretary may use up to five percent of the amounts made available for research under section 3 to make competitive grants regarding rangelands research in the high priority research areas identified in section 3(d).

(d) PRIORITIES.—In making grants under subsections (b) and (c), the Secretary shall give priority to research proposals in which—

“(1) the proposed research will be collaborative research organized through a center of scientific excellence;

“(2) the applicant agrees to provide matching funds (in the form of direct funding or in-kind support) in an amount equal to not less than 50 percent of the grant amount; and

“(3) the proposed research will be conducted as part of an existing private and public partnership or cooperative research effort and involves several interested research partners.”.

## **TITLE III—EXTENSION OR REPEAL OF RESEARCH, EXTENSION, AND EDUCATION INITIATIVES**

### **Subtitle A—Extensions**

#### **SEC. 301. NATIONAL RESEARCH INITIATIVE UNDER COMPETITIVE, SPECIAL, AND FACILITIES RESEARCH GRANT ACT.**

Subsection (b)(10) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(b)(10)) is amended by striking “1997” and inserting “2002”.

#### **SEC. 302. EQUITY IN EDUCATIONAL LAND-GRANT STATUS ACT OF 1994.**

Sections 533(b) and 535 of the Equity in Educational Land-Grant Status Act of 1994 (Public Law 103–382; 7 U.S.C. 301 note) are amended by striking “2000” each place it appears and inserting “2002”.

#### **SEC. 303. EDUCATION GRANTS PROGRAMS FOR HISPANIC-SERVING INSTITUTIONS.**

Section 1455(c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3241(c)) is amended by striking “fiscal year 1997” and inserting “each of the fiscal years 1997 through 2002”.

#### **SEC. 304. GENERAL AUTHORIZATION FOR AGRICULTURAL RESEARCH PROGRAMS.**

Section 1463 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3311) is amended in subsections (a) and (b) by striking “1997” each place it appears and inserting “2002”.

#### **SEC. 305. GENERAL AUTHORIZATION FOR EXTENSION EDUCATION.**

Section 1464 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3312) is amended by striking “1997” and inserting “2002”.

#### **SEC. 306. GRANTS AND FELLOWSHIPS FOR FOOD AND AGRICULTURAL SCIENCES EDUCATION.**

Section 1417(j) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3152(j)) is amended by striking “1997” and inserting “2002”.

**SEC. 307. GRANTS FOR RESEARCH ON THE PRODUCTION AND MARKETING OF ALCOHOLS AND INDUSTRIAL HYDROCARBONS FROM AGRICULTURAL COMMODITIES AND FOREST PRODUCTS.**

Section 1419(d) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3154(d)) is amended by striking "1997" and inserting "2002".

**SEC. 308. POLICY RESEARCH CENTERS.**

Section 1419A(d) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3155(d)) is amended by striking "fiscal years 1996 and 1997" and inserting "each of fiscal years 1996 through 2002".

**SEC. 309. HUMAN NUTRITION INTERVENTION AND HEALTH PROMOTION RESEARCH PROGRAM.**

Section 1424(d) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3174(d)) is amended by striking "fiscal years 1996 and 1997" and inserting "each of fiscal years 1996 through 2002".

**SEC. 310. PILOT RESEARCH PROGRAM TO COMBINE MEDICAL AND AGRICULTURAL RESEARCH.**

Section 1424A(d) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3174a(d)) is amended by striking "fiscal year 1997" and inserting "each of fiscal years 1997 through 2002".

**SEC. 311. FOOD AND NUTRITION EDUCATION PROGRAM.**

Section 1425(c)(3) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3175(c)(3)) is amended by striking "and 1997" and inserting "through 2002".

**SEC. 312. ANIMAL HEALTH AND DISEASE CONTINUING RESEARCH.**

Section 1433(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3195(a)) is amended in the first sentence by striking "1997" and inserting "2002".

**SEC. 313. ANIMAL HEALTH AND DISEASE NATIONAL OR REGIONAL RESEARCH.**

Section 1434(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3196(a)) is amended by striking "1997" and inserting "2002".

**SEC. 314. GRANT PROGRAM TO UPGRADE AGRICULTURAL AND FOOD SCIENCES FACILITIES AT 1890 LAND-GRANT COLLEGES.**

Section 1447(b) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3222b(b)) is amended by striking "and 1997" and inserting "through 2002".

**SEC. 315. NATIONAL RESEARCH AND TRAINING CENTENNIAL CENTERS.**

Section 1448 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3222c) is amended—

- (1) in subsection (a)(1), by striking "and 1997" and inserting "through 2002"; and
- (2) in subsection (f), by striking "1997" and inserting "2002".

**SEC. 316. SUPPLEMENTAL AND ALTERNATIVE CROPS RESEARCH.**

Section 1473D(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3319d(a)) is amended by striking "1997" and inserting "2002".

**SEC. 317. AQUACULTURE RESEARCH AND EXTENSION.**

Section 1477 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3324) is amended by striking "1997" and inserting "2002".

**SEC. 318. RANGELAND RESEARCH.**

Section 1483(a) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3336(a)) is amended by striking "1997" and inserting "2002".

**SEC. 319. FEDERAL AGRICULTURAL RESEARCH FACILITIES.**

Section 1431 of the National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1985 (Public Law 99-198; 99 Stat. 1566) is amended by striking "1997" and inserting "2002".

**SEC. 320. WATER QUALITY RESEARCH, EDUCATION, AND COORDINATION.**

Section 1481(d) of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5501(d)) is amended by striking "1997" and inserting "2002".

**SEC. 321. NATIONAL GENETICS RESOURCES PROGRAM.**

Section 1635(b) of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5844(b)) is amended by striking "1997" and inserting "2002".

**SEC. 322. AGRICULTURAL TELECOMMUNICATIONS PROGRAM.**

Section 1673(h) of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5926(h)) is amended by striking "1997" and inserting "2002".

**SEC. 323. ASSISTIVE TECHNOLOGY PROGRAM FOR FARMERS WITH DISABILITIES.**

Section 1680 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5933) is amended—

- (1) in subsection (a)(6)(B), by striking "1997" and inserting "2002"; and
- (2) in subsection (b)(2), by striking "1997" and inserting "2002".

**SEC. 324. NATIONAL RURAL INFORMATION CENTER CLEARINGHOUSE.**

Section 2381(e) of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 3125b(e)) is amended by striking "1997" and inserting "2002".

**SEC. 325. CRITICAL AGRICULTURAL MATERIALS ACT.**

Section 16(a) of the Critical Agricultural Materials Act (7 U.S.C. 178n(a)) is amended by striking "1997" and inserting "2002".

## **Subtitle B—Repeals**

**SEC. 341. AQUACULTURE RESEARCH FACILITIES.**

Section 1476 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3323) is repealed.

**SEC. 342. AGRICULTURAL RESEARCH PROGRAM UNDER NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT AMENDMENTS OF 1981.**

Subsection (b) of section 1432 of the National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1981 (Public Law 97–98; 7 U.S.C. 3222 note) is repealed.

**SEC. 343. LIVESTOCK PRODUCT SAFETY AND INSPECTION PROGRAM.**

Section 1670 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5923) is repealed.

**SEC. 344. GENERIC AUTHORIZATION OF APPROPRIATIONS.**

Sections 897 and 898 of the Federal Agriculture Improvement and Reform Act of 1996 (Public Law 104–127; 110 Stat. 1184) are repealed.

## **TITLE IV—NEW RESEARCH, EXTENSION, AND EDUCATION INITIATIVES**

### **Subtitle A—Partnerships for High-Value Agricultural Product Quality Research**

**SEC. 401. DEFINITIONS.**

For the purposes of this subtitle:

(1) **ELIGIBLE PARTNERSHIP.**—The term "eligible partnership" means a partnership consisting of a land-grant college or university and other entities specified in paragraph (1) of subsection (b) of section 402 that satisfies the eligibility criteria contained in such subsection.

(2) **SECRETARY.**—The term "Secretary" means the Secretary of Agriculture.

**SEC. 402. ESTABLISHMENT AND CHARACTERISTICS OF PARTNERSHIPS.**

(a) **ESTABLISHMENT BY GRANT.—**

(1) **IN GENERAL.**—The Secretary may make grants to an eligible partnership to coordinate and manage research and extension activities to enhance the quality of high-value agricultural products.

- (2) AWARDING OF GRANTS.—Grants under paragraph (1) shall be awarded on a competitive basis.
- (b) CRITERIA FOR AN ELIGIBLE PARTNERSHIP.—
- (1) PRIMARY INSTITUTIONS IN PARTNERSHIP.—The primary institution involved in an eligible partnership shall be a land-grant college or university, acting in partnership with other colleges or universities, nonprofit research and development entities, and Federal laboratories.
  - (2) PRIORITYZATION OF RESEARCH ACTIVITIES.—An eligible partnership shall prioritize research and extension activities in order to—
    - (A) enhance the competitiveness of United States agricultural products;
    - (B) increase exports of such products; and
    - (C) substitute such products for imported products.
  - (3) COORDINATION.—An eligible partnership shall coordinate among the entities comprising the partnership the activities supported by the eligible partnership, including the provision of mechanisms for sharing resources between institutions and laboratories and the coordination of public and private sector partners to maximize cost-effectiveness.
- (c) TYPES OF RESEARCH AND EXTENSION ACTIVITIES.—Research or extension supported by an eligible partnership may address the full spectrum of production, processing, packaging, transportation, and marketing issues related to a high-value agricultural product. Such issues include—
- (1) environmentally responsible—
    - (A) pest management alternatives and biotechnology;
    - (B) sustainable farming methods; and
    - (C) soil conservation and enhanced resource management;
  - (2) genetic research to develop improved agricultural-based products;
  - (3) refinement of field production practices and technology to improve quality, yield, and production efficiencies;
  - (4) processing and package technology to improve product quality, stability, or flavor intensity;
  - (5) marketing research regarding consumer perceptions and preferences;
  - (6) economic research, including industry characteristics, growth, competitive analysis; and
  - (7) research to facilitate diversified, value-added enterprises in rural areas.

#### **SEC. 403. ELEMENTS OF GRANT MAKING PROCESS.**

- (a) PERIOD OF GRANT.—The Secretary may award a grant under this subtitle for a period not to exceed five years.
- (b) PREFERENCES.—In making grants under this subtitle, the Secretary shall give preference to proposals that—
  - (1) demonstrate linkages with—
    - (A) agencies of the Department of Agriculture;
    - (B) other related Federal research laboratories and agencies;
    - (C) colleges and universities; and
    - (D) private industry; and
  - (2) guarantee matching funds in excess of the amounts required by subsection (c).
- (c) MATCHING FUNDS.—An eligible partnership shall contribute an amount of non-Federal funds for the operation of the partnership that is at least equal to the amount of grant funds received under this subtitle.
- (d) LIMITATION ON USE OF GRANT FUNDS.—Funds provided under this subtitle may not be used for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.

#### **SEC. 404. AUTHORIZATION OF APPROPRIATIONS AND RELATED PROVISIONS.**

- (a) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such funds as may be necessary to carry out this subtitle for each of the fiscal years 1998 through 2002.
- (b) LIMITATION ON ADMINISTRATIVE COSTS.—Not more than four percent of the funds appropriated to carry out this subtitle may be retained by the Secretary to pay administrative costs incurred by the Secretary to carry out this subtitle.

## **Subtitle B—Precision Agriculture**

#### **SEC. 411. DEFINITIONS.**

For purposes of this subtitle:

(1) PRECISION AGRICULTURE.—The term “precision agriculture” means an integrated information- and production-based farming system that is designed to increase long-term, site specific and whole farm production efficiencies, productivity, and profitability while minimizing unintended impacts on wildlife and the environment by—

(A) combining agricultural sciences, agricultural inputs and practices, agronomic production databases, and precision agriculture technologies to efficiently manage agronomic and livestock production systems;

(B) gathering on-farm information pertaining to the variation and interaction of site-specific spatial and temporal factors affecting crop and livestock production;

(C) integrating such information with appropriate data derived from field scouting, remote sensing, and other precision agriculture technologies in a timely manner in order to facilitate on-farm decisionmaking; or

(D) using such information to prescribe and deliver site-specific application of agricultural inputs and management practices in agricultural production systems.

(2) PRECISION AGRICULTURE TECHNOLOGIES.—The term “precision agriculture technologies” includes—

(A) instrumentation and techniques ranging from sophisticated sensors and software systems to manual sampling and data collection tools that measure, record, and manage spatial and temporal data;

(B) technologies for searching out and assembling information necessary for sound agricultural production decision making;

(C) open systems technologies for data networking and processing that produce valued systems for farm management decisionmaking; or

(D) machines that deliver information based management practices.

(3) ADVISORY BOARD.—The term “Advisory Board” means the National Agricultural Research, Extension, Education, and Economics Advisory Board established under section 1408 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3123).

(4) AGRICULTURAL INPUTS.—The term “agricultural inputs” includes all farm management, agronomic, and field applied agricultural production inputs, such as machinery, labor, time, fuel, irrigation water, commercial nutrients, feed stuffs, veterinary drugs and vaccines, livestock waste, crop protection chemicals, agronomic data and information, application and management services, seed, and other inputs used in agriculture production.

(5) ELIGIBLE ENTITY.—The term “eligible entity” means—

(A) a State agricultural experiment station;

(B) a college or university;

(C) a research institution or organization;

(D) a Federal or State government entity or agency;

(E) a national laboratory;

(F) a private organization or corporation;

(G) an agricultural producer or other land manager; or

(H) a precision agriculture partnership referred to in section 414.

(6) SYSTEMS RESEARCH.—The term “systems research” means an integrated, coordinated, and iterative investigative process, which considers the multiple interacting components and aspects of precision agriculture systems, including synthesis of new knowledge regarding the physical-chemical-biological processes and complex interactions with cropping, livestock production practices, and natural resource systems, precision agriculture technologies development and implementation, data and information collection and interpretation, production scale planning, production-scale implementation, and farm production efficiencies, productivity, and profitability.

#### **SEC. 412. COMPETITIVE GRANTS TO PROMOTE PRECISION AGRICULTURE.**

(a) GRANTS AUTHORIZED.—The Secretary of Agriculture may make competitive grants, for periods not to exceed five years, to eligible entities to conduct research, education, or information dissemination projects for the development and advancement of precision agriculture. Such grants shall be limited to those projects that the Secretary determines are unlikely to be financed by the private sector in the absence of a grant under this section. The Secretary shall make such grants in consultation with the Advisory Board.

(b) PURPOSE OF PROJECTS.—Research, education, or information dissemination projects supported by a grant under subsection (a) shall address one or more of the following:

(1) The study and promotion of components of precision agriculture technologies using a systems research approach that would increase long-term, site-specified and whole farm production efficiencies, productivity, profitability.

(2) The improvement in the understanding of agronomic systems, including, soil, water, land cover (including grazing lands), pest management systems, and meteorological variability.

(3) The provision of training and educational programs for State cooperative extension services agents, and other professionals involved in the agricultural production and transfer of integrated precision agriculture technology.

(4) The development, demonstration, and dissemination of information regarding precision agriculture technologies and systems and the potential benefits of precision agriculture as it relates to increased long-term farm production efficiencies, productivity, profitability, and the maintenance of the environment, and improvements in international trade into an integrated program to educate agricultural producers and consumers, including family owned and operated farms.

(c) GRANT PRIORITIES.—In making grants to eligible entities under subsection (a), the Secretary, in consultation with the Advisory Board, shall give priority to research, education, or information dissemination projects designed to accomplish the following:

(1) Evaluate the use of precision agriculture technologies using a systems research approach to increase long-term site-specific and whole farm production efficiencies, productivity, profitability.

(2) Integrate research, education, and information dissemination components in a practical and readily available manner so that the findings of the project will be made readily usable by farmers.

(3) Demonstrate the efficient use of agricultural inputs, rather than the uniform reduction in the use of agricultural inputs.

(4) Maximize the involvement and cooperation of precision agriculture producers, certified crop advisers, State cooperative extension services agents, agricultural input machinery, product and service providers, nonprofit organizations, agribusiness, veterinarians, land-grant colleges and universities, and Federal agencies in precision agriculture systems research projects involving on-farm research, education, and information dissemination of precision agriculture.

(5) Maximize collaboration with multiple agencies and other partners that include leveraging of funds and resources.

(d) MATCHING FUNDS.—The amount of a grant under this section to an eligible entity (other than a Federal agency) may not exceed the amount which the eligible entity makes available out of non-Federal funds for precision agriculture research and for the establishment and maintenance of facilities necessary for conducting precision agriculture research.

#### **SEC. 413. RESERVATION OF FUNDS FOR EDUCATION AND INFORMATION DISSEMINATION PROJECTS.**

Of the funds made available for grants under section 412, the Secretary of Agriculture shall reserve a portion of such funds for grants for projects regarding precision agriculture related to education or information dissemination.

#### **SEC. 414. PRECISION AGRICULTURE PARTNERSHIPS.**

In carrying out this subtitle, the Secretary of Agriculture, in consultation with the Advisory Board, shall encourage the establishment of appropriate multi-state and national partnerships or consortia between—

(1) land-grant colleges and universities, State agricultural experiment stations, State cooperative extension services, other colleges and universities with demonstrable expertise regarding precision agriculture, agencies of the Department of Agriculture, national laboratories, agribusinesses, agricultural equipment and input manufacturers and retailers, certified crop advisers, commodity organizations, veterinaries, other Federal or State government entities and agencies, or nonagricultural industries and nonprofit organizations with demonstrable expertise regarding precision agriculture; and

(2) agricultural producers or other land managers.

#### **SEC. 415. MISCELLANEOUS PROVISIONS.**

(a) PROHIBITION ON USE OF FUNDS FOR CERTAIN PURPOSES.—The Secretary of Agriculture may not make a grant under section 412 for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.

(b) APPLICATION OF OTHER LAWS.—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.)

shall not apply to a panel or board created for the purpose of reviewing applications or proposals submitted under this subtitle.

**SEC. 416. AUTHORIZATION OF APPROPRIATIONS.**

(a) **AUTHORIZATION OF APPROPRIATIONS.**—There are hereby authorized to be appropriated to carry out this subtitle \$40,000,000 for each of the fiscal years 1998 through 2002.

(b) **ADMINISTRATIVE COSTS.**—Not more than 3 percent of the amount appropriated under this subtitle may be retained by the Secretary to pay the administrative costs incurred by the Secretary in carrying out this subtitle.

(c) **AVAILABILITY OF FUNDS.**—Funds made available under paragraph (a) shall be available for obligation for a two-year period beginning on October 1 of the fiscal year for which the funds are made available.

## Subtitle C—Other Initiatives

**SEC. 421. HIGH-PRIORITY RESEARCH AND EXTENSION INITIATIVES.**

Section 1672 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5925) is amended to read as follows:

**"SEC. 1672. HIGH-PRIORITY RESEARCH AND EXTENSION INITIATIVES.**

"(a) **COMPETITIVE SPECIALIZED RESEARCH AND EXTENSION GRANTS AUTHORIZED.**—The Secretary of Agriculture, in consultation with the National Agricultural Research, Education, Extension, and Economics Advisory Board, may make competitive grants to support research and extension activities in the high-priority research and extension areas specified in subsection (e).

"(b) **GRANT TYPES AND PROCESS; PROHIBITION ON CONSTRUCTION.**—Paragraphs (6), (7), and (11) of subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) shall apply with respect to the making of grants under this section.

"(c) **MATCHING FUNDS REQUIRED.**—

“(1) **IN GENERAL.**—The Secretary shall require the recipient of a grant under this section to provide funds or in-kind support from non-Federal sources in an amount at least equal to the amount provided by the Federal Government.

“(2) **WAIVER AUTHORITY.**—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a research project if the Secretary determines that—

“(A) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or

“(B) the project involves a minor commodity, deals with scientifically important research, and the grant recipient would be unable to satisfy the matching funds requirement.

"(d) **PARTNERSHIPS ENCOURAGED.**—Following the completion of a peer review process for grant proposals received under this section, the Secretary may give priority to those grant proposals found to be scientifically meritorious that involve the co-operation of multiple institutions.

"(e) **HIGH-PRIORITY RESEARCH AND EXTENSION AREAS.**—

“(1) **BROWN CITRUS APHID AND CITRUS TRISTEZA VIRUS RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of—

“(A) developing methods to control or eradicate the brown citrus aphid and the citrus tristeza virus from citrus crops grown in the United States; or

“(B) adapting citrus crops grown in the United States to the brown citrus aphid and the citrus tristeza virus.

“(2) **ETHANOL RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of carrying on or enhancing research on ethanol derived from agricultural crops as an alternative fuel source.

“(3) **AFLATOXIN RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of identifying and controlling aflatoxin in the food and feed chains.

“(4) **MESQUITE RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of developing enhanced production methods and commercial uses of mesquite.

"(5) PRICKLY PEAR RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating enhanced genetic selection and processing techniques of prickly pears.

"(6) DEER TICK ECOLOGY RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of studying the population ecology of deer ticks and other insects and pests which transmit Lyme disease.

"(7) RED MEAT SAFETY RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing—

"(A) intervention strategies that reduce microbial contamination on carcass surfaces;

"(B) microbiological mapping of carcass surfaces; and

"(C) model hazard analysis and critical control point plans.

"(8) GRAIN SORGHUM ERGOT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing techniques for the eradication of sorghum ergot.

"(9) ANIMAL WASTE AND ODOR MANAGEMENT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of—

"(A) identifying, evaluating, and demonstrating innovative technologies for animal waste management and odor control; and

"(B) conducting information workshops to disseminate the results of such research.

"(10) FIRE ANT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of control, management, and eradication of fire ants.

"(11) WHEAT SCAB RESEARCH AND EXTENSION.—Research and extension grants may be made under this section to a consortium of land-grant colleges and universities for the purpose of understanding and combating diseases of wheat and barley caused by *Fusarium graminearum* and related fungi (commonly known as wheat scab).

"(12) PEANUT MARKET ENHANCEMENT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of evaluating the economics of applying innovative technologies for peanut processing in a commercial environment.

"(13) DAIRY FINANCIAL RISK MANAGEMENT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of providing research, development, or education materials, information, and outreach programs regarding risk management strategies for dairy producers and for dairy cooperatives and other processors and marketers of milk.

"(14) COTTON RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of improving pest management, fiber quality enhancement, economic assessment, textile production, and optimized production systems for short staple cotton.

"(15) METHYL BROMIDE RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of—

"(A) developing and evaluating chemical and nonchemical alternatives, and use and emission reduction strategies, for pre-planting and post-harvest uses of methyl bromide; and

"(B) transferring the results of such research for agricultural producer use.

"(16) WATER QUALITY AND AQUATIC ECOSYSTEM RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating the impact on aquatic food webs, especially commercially important aquatic species and their habitats, of microorganisms of the genus *Pfiesteria* and other microorganisms that are a threat to human or animal health.

"(17) POTATO RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing and evaluating new strains of potatoes which are resistant to blight and other diseases, as well as insects. Emphasis may be placed on developing potato varieties that lend themselves to innovative marketing approaches.

"(18) WOOD UTILIZATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing new uses for wood from underutilized tree species as well as investigating methods of modifying wood and wood fibers to produce better building materials.

"(19) LOW-BUSH BLUEBERRY RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of evaluating methods of propagating and developing low-bush blueberry as a marketable crop.

"(20) FORMOSAN TERMITE ERADICATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of—

"(A) conducting research for the control, management, and possible eradication of Formosan termites in the United States; and

"(B) collecting data on the effectiveness of research projects conducted under this paragraph.

"(21) SWINE WASTE MANAGEMENT AND ODOR CONTROL RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating the microbiology of swine waste and developing improved methods to effectively manage air and water quality in animal husbandry.

"(22) WETLANDS UTILIZATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of better utilizing wetlands in diverse ways to provide various economic, agricultural, and environmental benefits.

"(23) WILD PAMPAS GRASS CONTROL AND ERADICATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of control, management, and eradication of wild pampas grass.

"(24) PATHOGEN DETECTION AND LIMITATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of identifying advanced detection and processing methods to limit the presence of pathogens, including hepatitis A and *E. coli* 0157:H7, in domestic and imported foods.

"(25) FINANCIAL RISK MANAGEMENT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of providing research, development, or education materials, information, and outreach programs regarding financial risk management strategies for agricultural producers and for cooperatives and other processors and marketers of any agricultural commodity.

"(26) ORNAMENTAL TROPICAL FISH RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of meeting the needs of commercial producers of ornamental tropical fish and aquatic plants for improvements in the areas of fish reproduction, health, nutrition, predator control, water use, water quality control, and farming technology.

"(27) SHEEP SCRAPIE RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating the genetic aspects of scrapie in sheep.

"(28) ANIMAL WASTE MANAGEMENT AT RURAL/URBAN INTERFACES.—Research and extension grants may be made under this section for the purpose of identifying, evaluating, and demonstrating innovative technologies to be used for animal waste management (including odor control) in rural areas adjacent to urban or suburban areas in connection with waste management activities undertaken in urban or suburban areas.

"(29) GYPSY MOTH RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing biological control, management, and eradication methods against nonnative insects, including *Lymantria dispar* (commonly known as the Gypsy Moth), that contribute to significant agricultural, economical, or environmental harm.

"(30) DAIRY EFFICIENCY, PROFITABILITY, AND COMPETITIVENESS RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of improving the efficiency, profitability, and competitiveness of dairy production on farms that are heavily dependent on manufacturing uses of milk.

"(31) ANIMAL FEED RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of maximizing nutrition management for livestock, while limiting risks, such as mineral bypass, associated with livestock feeding practices.

"(32) FORESTRY RESEARCH AND EXTENSION.—Research and extension grants may be made under this section to develop and distribute new, high-quality, science-based information for the purpose of improving the long-term productivity of forest resources and contributing to forest-based economic development by addressing such issues as forest land use policies, multiple-use forest management, including wildlife habitat development, improved forest regeneration systems, and timber supply, and improved development, manufacturing, and marketing of forest products.

**"(f) AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated for each of the fiscal years 1998 through 2002 such sums as may be necessary to make grants under this section in each of the high-priority research and extension areas specified in subsection (e).

**"(g) USE OF TASK FORCES.—**

"(1) ESTABLISHMENT.—To facilitate the making of research and extension grants under this section in a high-priority research and extension area specified in subsection (e), the Secretary may appoint a task force to make recommendations to the Secretary.

"(2) LIMITATION ON COSTS.—The Secretary may not incur costs in excess of \$1,000 in any fiscal year in connection with each task force established under this subsection.

"(3) APPLICATION OF OTHER LAWS.—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to a task force established under this subsection.".

**SEC. 422. ORGANIC AGRICULTURE RESEARCH AND EXTENSION INITIATIVE.**

The Food, Agriculture, Conservation, and Trade Act of 1990 is amended by inserting after section 1672 (7 U.S.C. 5925) the following new section:

**"SEC. 1672A. ORGANIC AGRICULTURE RESEARCH AND EXTENSION INITIATIVE.**

**"(a) COMPETITIVE SPECIALIZED RESEARCH AND EXTENSION GRANTS AUTHORIZED.**—The Secretary of Agriculture, in consultation with the National Agricultural Research, Education, Extension, and Economics Advisory Board, may make competitive grants to support research and extension activities regarding organically grown and processed agricultural commodities for the purpose of—

"(1) facilitating the development of organic agriculture production and processing methods;

"(2) evaluating the potential economic benefits to producers and processors who use organic methods; and

"(3) exploring international trade opportunities for organically grown and processed agricultural commodities.

**"(b) GRANT TYPES AND PROCESS, PROHIBITION ON CONSTRUCTION.**—Paragraphs (6), (7), and (11) of subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) shall apply with respect to the making of grants under this section.

**"(c) MATCHING FUNDS REQUIRED.—**

"(1) IN GENERAL.—The Secretary shall require the recipient of a grant under this section to provide funds or in-kind support from non-Federal sources in an amount at least equal to the amount provided by the Federal Government.

"(2) WAIVER AUTHORITY.—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a research project if the Secretary determines that—

"(A) the results of the project, while of particular benefit to a specified agricultural commodity, are likely to be applicable to agricultural commodities generally; or

"(B) the project involves a minor commodity, deals with scientifically important research, and grant recipient would be unable to satisfy the matching funds requirement.

**"(d) PARTNERSHIPS ENCOURAGED.**—Following the completion of a peer review process for grant proposals received under this section, the Secretary may give priority to those grant proposals found to be scientifically meritorious that involved the cooperation of multiple institutions.

**"(e) AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated for each of the fiscal years 1998 through 2002 such sums as may be necessary to make grants under this section.".

**SEC. 423. UNITED STATES-MEXICO JOINT AGRICULTURAL RESEARCH.**

Subtitle I of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 is amended by inserting after section 1458 (7 U.S.C. 3291) the following new section:

**"SEC. 1459. UNITED STATES-MEXICO JOINT AGRICULTURAL RESEARCH.**

**"(a) RESEARCH AND DEVELOPMENT PROGRAM.**—The Secretary may provide for an agricultural research and development program with the United States/Mexico Foundation for Science, which will focus on binational problems facing agricultural producers and consumers in the two countries, in particular pressing problems in the areas of food safety, plant and animal pest control, and the natural resources base on which agriculture depends.

"(b) ADMINISTRATION.—Grants under the research and development program shall be awarded competitively through the Foundation.

"(c) MATCHING REQUIREMENTS.—The provision of funds to the Foundation by the United States Government shall be subject to the condition that the Government of Mexico match, on at least an equal ratio, any funds provided by the United States Government.

"(d) LIMITATION ON USE OF FUNDS.—Funds provided under this section may not be used for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.”.

**SEC. 424. COMPETITIVE GRANTS FOR INTERNATIONAL AGRICULTURAL SCIENCE AND EDUCATION PROGRAMS.**

Subtitle I of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3291 et seq.) is amended by inserting after section 1459, as added by section 423, the following new section:

**"SEC. 1459A. COMPETITIVE GRANTS FOR INTERNATIONAL AGRICULTURAL SCIENCE AND EDUCATION PROGRAMS.**

"(a) COMPETITIVE GRANTS AUTHORIZED.—The Secretary may make competitive grants to colleges and universities in order to strengthen United States economic competitiveness and to promote international market development.

"(b) PURPOSE OF GRANTS.—Grants under this section shall be directed to agricultural research, extension, and teaching activities that will—

"(1) enhance the international content of the curricula in colleges and universities so as to ensure that United States students acquire an understanding of the international dimensions and trade implications of their studies;

"(2) ensure that United States scientists, extension agents, and educators involved in agricultural research and development activities outside of the United States have the opportunity to convey the implications of their activities and findings to their peers and students in the United States and to the users of agricultural research, extension, and teaching;

"(3) enhance the capabilities of colleges and universities to do collaborative research with other countries, in cooperation with other Federal agencies, on issues relevant to United States agricultural competitiveness;

"(4) enhance the capabilities of colleges and universities to provide cooperative extension education to promote the application of new technology developed in foreign countries to United States agriculture; and

"(5) enhance the capability of United States colleges and universities, in cooperation with other Federal agencies, to provide leadership and educational programs that will assist United States natural resources and food production, processing, and distribution businesses and industries to compete internationally, including product market identification, international policies limiting or enhancing market production, development of new or enhancement of existing markets, and production efficiencies.

"(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out this section.”.

**SEC. 425. FOOD ANIMAL RESIDUE AVOIDANCE DATABASE PROGRAM.**

(a) CONTINUATION OF PROGRAM.—The Secretary of Agriculture shall continue operation of the Food Animal Residue Avoidance Database program (referred to in this section as the "FARAD program") through appropriate colleges or universities.

(b) ACTIVITIES.—In carrying out the FARAD program, the Secretary of Agriculture shall—

(1) provide livestock producers, extension specialists, scientists, and veterinarians with information to prevent drug, pesticide, and environmental contaminant residues in food animal products;

(2) maintain up-to-date information concerning—

(A) withdrawal times on FDA-approved food animal drugs and appropriate withdrawal intervals for drugs used in food animals in the United States, as established under section 512(a) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360b(a));

(B) official tolerances for drugs and pesticides in tissues, eggs, and milk;

(C) descriptions and sensitivities of rapid screening tests for detecting residues in tissues, eggs, and milk; and

(D) data on the distribution and fate of chemicals in food animals;

(3) publish periodically a compilation of food animal drugs approved by the Food and Drug Administration;

(4) make information on food animal drugs available to the public through handbooks and other literature, computer software, a telephone hotline, and the Internet;

(5) furnish producer quality-assurance programs with up-to-date data on approved drugs;

(6) maintain a comprehensive and up-to-date, residue avoidance database;

(7) provide professional advice for determining the withdrawal times necessary for food safety in the use of drugs in food animals; and

(8) engage in other activities designed to promote food safety.

(c) GRANTS.—The Secretary of Agriculture, in consultation with the National Agricultural Research, Education, Extension, and Economics Advisory Board, may make grants to colleges and universities to operate the FARAD program. The term of a grant shall be three years, with options to extend the term of the grant triennially.

#### **SEC. 426. DEVELOPMENT AND COMMERCIALIZATION OF NEW BIOBASED PRODUCTS.**

(a) BIOBASED PRODUCT DEFINED.—For purposes of this section, the term "biobased product" means a product suitable for food or nonfood use that is derived in whole or in part from renewable agricultural and forestry materials.

(b) COOPERATIVE AGREEMENTS FOR BIOBASED PRODUCTS.—The Secretary of Agriculture may enter into cooperative agreements with private entities described in subsection (c), under which the facilities and technical expertise of the Agricultural Research Service may be made available to operate pilot plants and other large-scale preparative facilities for the purpose of bringing technologies necessary for the development and commercialization of new biobased products to the point of practical application. Cooperative activities may include research on potential environmental impacts of a biobased product, methods to reduce the cost of manufacturing a biobased product, and other appropriate research.

(c) ELIGIBLE PARTNERS.—The following entities shall be eligible to enter into a cooperative agreement under this section:

(1) A party that has entered into a cooperative research and development agreement with the Secretary under section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a).

(2) A recipient of funding from the Alternative Agricultural Research and Commercialization Corporation established under section 1658 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5902).

(3) A recipient of funding from the Biotechnology Research and Development Corporation.

(4) A recipient of funding from the Secretary under a Small Business Innovation Research Program established under section 9 of the Small Business Act (15 U.S.C. 638).

(d) SOURCE OF FUNDS.—To carry out this section, the Secretary may use—

(1) funds appropriated to carry out this section; and

(2) funds available for cooperative research and development agreements (as described in subsection (b)).

(e) SALE OF DEVELOPED PRODUCTS.—The Secretary shall authorize the private partner or partners in a cooperative agreement consistent with this section to sell new biobased products produced at a pilot plant under the agreement for the purpose of determining the market potential for the products.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out this section.

#### **SEC. 427. THOMAS JEFFERSON INITIATIVE FOR CROP DIVERSIFICATION.**

(a) INITIATIVE REQUIRED.—The Secretary of Agriculture shall provide for a research initiative (to be known as the "Thomas Jefferson Initiative for Crop Diversification") for the purpose of conducting research and development, in cooperation with other public and private entities, on the production and marketing of new and nontraditional crops needed to strengthen and diversify the agricultural production base of the United States. The initiative shall include research and education efforts regarding new and nontraditional crops designed—

(1) to identify and overcome agronomic barriers to profitable production;

(2) to identify and overcome other production and marketing barriers; and

(3) to develop processing and utilization technologies for new and nontraditional crops.

(b) PURPOSES.—The initiative is established—

(1) to develop a focused program of research and development at the regional and national level to overcome barriers to development of new crop opportunities for farmers and related value-added enterprise development in rural communities; and

(2) to ensure a broad-based effort encompassing research, education, market development, and support of entrepreneurial activity leading to increased agricultural diversification.

(c) ESTABLISHMENT OF INITIATIVE.—The Secretary shall coordinate the initiative through a nonprofit center or institute that will coordinate research and education programs in cooperation with other public and private entities. The Secretary shall administer research and education grants made under this section.

(d) REGIONAL EMPHASIS.—The Secretary shall support development of multi-State regional efforts in crop diversification. Of funding made available to carry out the initiative, 50 percent shall be used for regional efforts centered at land-grant colleges and universities in order to facilitate site-specific crop development efforts.

(e) ELIGIBLE GRANTEE.—The Secretary may award funds under this section to colleges or universities, nonprofit organizations, or public agencies.

(f) ADMINISTRATION.—

(1) GRANTS AND CONTRACTS.—Grants awarded through the initiative shall be selected on a competitive basis. The recipient of a grant may use a portion of the grant funds for standard contracts with private businesses, such as for test processing of a new or nontraditional crop.

(2) TERMS.—The term of a grant awarded through the initiative may not exceed five years.

(3) MATCHING FUNDS.—The Secretary shall require the recipient of a grant awarded through the initiative to contribute an amount of funds from non-Federal sources at least equal to the amount provided by the Federal Government.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out this section.

**SEC. 428. INTEGRATED RESEARCH, EDUCATION, AND EXTENSION COMPETITIVE GRANTS PROGRAM.**

(a) PURPOSE.—It is the purpose of this section to authorize the Secretary of Agriculture to establish an integrated research, education, and extension competitive grant program to provide funding for integrated, multi-functional research, education, and extension activities.

(b) COMPETITIVE GRANTS AUTHORIZED.—Subject to the appropriation of funds to carry out this section, the Secretary may award grants to colleges and universities (as defined in section 1404(4) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3103(4))) on a competitive basis for integrated research, education, and extension projects in accordance with the provisions of this section.

(c) CRITERIA FOR GRANTS.—Grants under this section shall be awarded to address priorities in United States agriculture, determined by the Secretary in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board, which involve integrated research, education, and extension activities.

(d) MATCHING OF FUNDS.—

(1) GENERAL REQUIREMENT.—If a grant under this section is to the particular benefit of a specific agricultural commodity, the Secretary shall require the recipient of the grant to provide funds or in-kind support to match the amount of funds provided by the Secretary in the grant.

(2) WAIVER.—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a grant if the Secretary determines that—

(A) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or

(B) the project involves a minor commodity, deals with scientifically important research, and the grant recipient would be unable to satisfy the matching funds requirement.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated such sums as may be necessary for each of the fiscal years 1998 through 2002 to carry out this section.

**SEC. 429. RESEARCH GRANTS UNDER EQUITY IN EDUCATIONAL LAND-GRANT STATUS ACT OF 1994.**

The Equity in Educational Land-Grant Status Act of 1994 (Public Law 103-382; 7 U.S.C. 301 note) is amended by adding at the end the following new section—

**\*SEC. 536. RESEARCH GRANTS.**

(a) RESEARCH GRANTS AUTHORIZED.—The Secretary of Agriculture may make grants under this section on the basis of a competitive application process (and in accordance with such regulations that the Secretary may promulgate) to a 1994 In-

stitution to assist the 1995 Institution to conduct agricultural research that addresses high priority concerns of tribal, national, or multi-state significance.

(b) REQUIREMENTS.—Grant applications submitted under this section shall certify that the research to be conducted will be performed under a cooperative agreement with at least one other land-grant college or university (exclusive of another 1994 Institution).

(c) AUTHORIZATION OF APPROPRIATION.—There are authorized to be appropriated such sums as may be necessary to carry out this section for each of the fiscal years 1998 through 2002. Amounts appropriated shall remain available until expended.”.

## TITLE V—MISCELLANEOUS PROVISIONS

### SEC. 501. ROLE OF SECRETARY OF AGRICULTURE REGARDING FOOD AND AGRICULTURAL SCIENCES RESEARCH, EDUCATION, AND EXTENSION.

The Secretary of Agriculture shall be the principal official in the executive branch responsible for coordinating all Federal research and extension activities related to food and agricultural sciences.

### SEC. 502. OFFICE OF PEST MANAGEMENT POLICY.

(a) OBJECTIVE.—The establishment of an Office of Pest Management Policy pursuant to this section is intended to provide for the effective coordination of agricultural policies and activities within the Department of Agriculture related to pesticides and of the development and use of pest management tools, while taking into account the effects of regulatory actions of other government agencies.

(b) ESTABLISHMENT OF OFFICE; PRINCIPAL RESPONSIBILITIES.—The Secretary of Agriculture shall establish in the Department of Agriculture an Office of Pest Management Policy, which shall be responsible for—

(1) the development and coordination of Department of Agriculture policy on pest management and pesticides;

(2) the coordination of activities and services of the Department, including research, extension, and education activities, regarding the development, availability, and use of economically and environmentally sound pest management tools and practices;

(3) assisting the Department in fulfilling its responsibilities related to pest management or pesticides under the Food Quality Protection Act of 1996 (Public Law 104-170; 110 Stat. 1489), the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), or other law; and

(4) performing such other functions as may be required by law or prescribed by the Secretary.

(c) INTERAGENCY COORDINATION.—In support of its responsibilities under subsection (a), the Office of Pest Management Policy shall provide leadership to ensure coordination of interagency activities with the Environmental Protection Agency, the Food and Drug Administration, and other Federal and State agencies.

(d) OUTREACH.—The Office of Pest Management Policy shall consult with agricultural producers that may be affected by pest management or pesticide-related activities or actions of the Department or other agencies as necessary in carrying out the Office's responsibilities under this section.

(e) DIRECTOR.—The Office of Pest Management Policy shall be under the direction of a Director appointed by the Secretary who shall report directly to the Secretary or a designee of the Secretary.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out this section.

### SEC. 503. FOOD SAFETY RESEARCH INFORMATION OFFICE AND NATIONAL CONFERENCE.

#### (a) FOOD SAFETY RESEARCH INFORMATION OFFICE.—

(1) ESTABLISHMENT AND PURPOSE.—The Secretary of Agriculture shall establish a Food Safety Research Information Office at the National Agricultural Library. The Office shall provide to the research community and the general public information on publicly funded, and to the extent possible, privately funded food safety research initiatives for the purpose of—

(A) preventing unintended duplication of food safety research; and

(B) assisting the executive and legislative branches of the Government and private research entities to assess food safety research needs and priorities.

(2) COOPERATION.—The Office shall carry out paragraph (1) in cooperation with the National Institutes of Health, the Food and Drug Administration, the

Centers for Disease Control and Prevention, public institutions, and on a voluntary basis, private research interests.

(b) NATIONAL CONFERENCE.—Not later than 120 days after the date of the enactment of this Act, the Secretary shall sponsor a conference to be known as the "National Conference on Food Safety Research", for the purpose of beginning the task of food safety research prioritization. The Secretary shall sponsor annual workshops in each of the subsequent four years after the conference so that priorities can be updated or adjusted to reflect changing food safety concerns.

(c) FOOD SAFETY REPORT.—With regard to the study and report to be prepared by the National Academy of Sciences on the scientific and organizational needs for an effective food safety system, the study shall include recommendations to ensure that the food safety inspection system, within the resources traditionally available to existing food safety agencies, protects the public health.

#### **SEC. 504. NUTRIENT COMPOSITION DATA.**

(a) IN GENERAL.—The Secretary of Agriculture shall update, on a periodic basis, nutrient composition data.

(b) REPORT.—Not later than 180 days after the date of the enactment of this Act, the Secretary shall submit to Congress a report that describes—

(1) the method the Secretary will use to update nutrient composition data, including the quality assurance criteria that will be used and the method for generating the data; and

(2) the timing for updating the data.

#### **SEC. 505. AVAILABILITY OF FUNDS RECEIVED OR COLLECTED ON BEHALF OF NATIONAL ARBORETUM.**

Section 6(b) of the Act of March 4, 1927 (20 U.S.C. 196(b)), is amended by striking "Treasury" and inserting "Treasury. Amounts in the special fund shall be available to the Secretary of Agriculture, without further appropriation.".

#### **SEC. 506. RETENTION AND USE OF AGRICULTURAL RESEARCH SERVICE PATENT CULTURE COLLECTION FEES.**

All funds collected by the Agricultural Research Service of the Department of Agriculture in connection with the acceptance of microorganisms for deposit in, or the distribution of microorganisms from, the Patent Culture Collection maintained and operated by the Agricultural Research Service shall be credited to the appropriation supporting the maintenance and operation of the Patent Culture Collection. The collected funds shall be available to the Agricultural Research Service, without further appropriation or fiscal-year limitation, to carry out its responsibilities under law (including international treaty) with respect to the Patent Culture Collection.

#### **SEC. 507. REIMBURSEMENT OF EXPENSES INCURRED UNDER SHEEP PROMOTION, RESEARCH, AND INFORMATION ACT OF 1994.**

Using funds available to the Agricultural Marketing Service, the Service may reimburse the American Sheep Industry Association for expenses incurred by American Sheep Industry Association between February 6, 1996, and May 17, 1996, in preparation for the implementation of a sheep and wool promotion, research, education, and information order under the Sheep Promotion, Research, and Information Act of 1994 (7 U.S.C. 7101 et seq.).

#### **SEC. 508. SENSE OF CONGRESS REGARDING AGRICULTURAL RESEARCH SERVICE EMPHASIS ON IN FIELD RESEARCH REGARDING METHYL BROMIDE ALTERNATIVES.**

It is the sense of Congress that, of the Agricultural Research Service funds made available for a fiscal year for research regarding the development for agricultural use of alternatives to methyl bromide, the Secretary of Agriculture should use a substantial portion of such funds for research to be conducted in real field conditions, in particular pre-planting and post-harvest conditions, so as to expedite the development and commercial use of methyl bromide alternatives.

#### **SEC. 509. SENSE OF CONGRESS REGARDING IMPORTANCE OF SCHOOL-BASED AGRICULTURAL EDUCATION.**

It is the sense of Congress that the Secretary of Agriculture and the Secretary of Education should collaborate and cooperate in providing both instructional and technical support for school-based agricultural education.

#### **SEC. 510. SENSE OF CONGRESS REGARDING DESIGNATION OF DEPARTMENT CRISIS MANAGEMENT TEAM.**

(a) FINDINGS.—Congress finds the following:

(1) The Department of Agriculture plays a crucial role in ensuring that the United States is a world leader in maintaining the most affordable, abundant, wholesome, and safe food supply for its citizens.

(2) It is in the best interest of consumers, producers, processors, retailers, government officials, and other interested parties to ensure that any crisis that may affect the operation of the Department or the production of a safe and wholesome food supply is addressed in an effective manner.

(3) Unforeseen circumstances, including natural disaster, personnel management problems, threats to public health, and trade disruptions, have the potential to undermine the operation of the Department and the Nation's ability to efficiently provide a safe, affordable, abundant, and wholesome food supply.

(4) Department of Agriculture employees, consumer confidence, and the food production sector have been adversely impacted as a result of the challenges associated with Federal agencies' ability to respond to incidents in a coordinated and timely fashion.

(5) An effective response to crises, emergencies, and similar situations depends upon the timely and efficient coordination of Federal, State, and local government agencies.

(6) It is in the best interests of the Nation to ensure that whenever a crisis occurs the appropriate Federal agencies coordinate their activities.

(7) The Department of Agriculture should take the lead in ensuring a safe and wholesome supply of food for the Nation because of its broad and diverse relationship with consumers and the food production sector.

(b) SENSE OF CONGRESS.—It is the sense of Congress that the Secretary of Agriculture should—

(1) designate a Crisis Management Team within the Department of Agriculture, which would be composed of senior departmental personnel with strong subject matter expertise selected from each relevant agency of the Department and would be headed by a team leader with strong management and communications skills;

(2) upon establishment of such a Crisis Management Team, direct that the Crisis Management Team—

(A) develop a department-wide crisis management plan, taking into account similar plans developed by other government agencies and other large organizations;

(B) develop detailed written procedures for implementing the crisis management plan;

(C) conduct periodic reviews and revisions of the crisis management plan and procedures;

(D) ensure compliance with crisis management procedures by departmental personnel;

(E) coordinate the Department's information gathering and dissemination activities concerning issues managed by the Crisis Management Team;

(F) ensure that all employees of the Department are familiar with the crisis management plan and procedures and are encouraged to bring information regarding crises or potential crises to the attention of team members;

(G) ensure that departmental spokespersons convey accurate, timely, and scientifically sound information that is easily understood by the target audience; and

(H) cooperate and coordinate with other Federal agencies, States, local governments, industry, and public interest groups; and

(3) seek to enter into cooperative agreements with other Federal departments and agencies that have related programs or activities to help ensure consistent, accurate, and coordinated dissemination of information throughout the executive branch in the event of a crisis.

#### BRIEF EXPLANATION

H.R. 2534 provides for improved administration of agricultural research, extension, and education programs by requiring public input into priority setting for research and extension programs; requiring that all research programs administered by the Department of Agriculture be peer reviewed; mandating that as a condition of receipt of Federal formula funds for research and extension, land grant colleges and universities develop and implement a system of merit review; and by increasing the resources available for agricultural research, extension, and education programs by requiring that Federal funds be matched on a 1 to 1 basis with non-fed-

eral funds. In addition, H.R. 2534 repeals, reforms, or amends other authorities for agricultural research, extension, and education programs.

#### SUMMARY OF LEGISLATION

This legislation, the Agricultural Research, Extension, and Education Reauthorization Act of 1997, re-authorizes and reforms these programs. Among the major provisions are—

##### *1. Improved mechanisms for user input*

Under current law, the Secretary of Agriculture may develop and set priorities for most Federally funded agricultural research, extension, and education programs with limited or no opportunity for the users of agricultural research, extension, and education to provide input. This act requires that in setting priorities, the Secretary solicit and consider input of users of the various products of such programs, as well as consult with the National Agricultural Research, Extension, Education, and Economics Advisory Board. In carrying out this consultation, the Secretary is required to receive written recommendations from the Advisory Board as well as provide a written response to the Board concerning the manner and extent to which their recommendations will be implemented.

##### *2. Accountability reforms*

All Federal research, extension, and education funding would be subject to scientific peer review and merit review. Cooperative State Research, Education, and Extension Service competitively awarded funds for research, extension, and education activities and Agricultural Research Service research activities must address high priority concerns and be of national or multi-state significance. All intramural research conducted by agencies of the Department of Agriculture would have to be peer reviewed for scientific merit with the majority of the review panel members coming from outside the agency whose work is being reviewed.

##### *3. Leveraging of Federal funds*

The Agricultural Research Service, land grant universities and private agri-businesses each have their strengths, however, the public desire for greater accountability demands more emphasis on role definition and coordination between the various groups. In so doing, the legislation seeks to prevent unnecessary duplication of research efforts and adopt policies which enhance partnerships through the requirement for matching funds, thereby increasing the amount of total resources available for these important activities.

#### PURPOSE AND NEED OF LEGISLATION

Throughout the 1980's and 1990's, major changes have been taking place in world trade policy, and domestic budget policy. The 1995 debate over Federal farm programs has re-affirmed the federal budget as the driving force in agricultural program policy. The reforms accomplished in the Federal Agriculture Improvement and Reform (FAIR) Act of 1996 were the first step in helping transition

U.S. agricultural producers into a new era of Federal farm policy. At the same time, most discussions regarding agricultural research policy were postponed to provide Congress with the opportunity to review Federal programs in relation to the changes in overall farm policy. Agricultural research, extension, and education should be an important part of the report to be filed January 1, 2001 by the Commission on 21st Century Production Agriculture as provided in the FAIR Act.

The Federal Agriculture Improvement and Reform (FAIR) Act of 1996 authorized agricultural research, education, and extension programs for two years with general authority for the Appropriations Committee to fund research programs through 2002. During the 104th Congress, the House Committee on Agriculture, in making the decision to push for a shortened authorization period for agricultural research in the FAIR Act, considered three major points:

(1) The House and Senate Agriculture Committees had not conducted a comprehensive review of the nearly \$1.8 billion spent on Agricultural research, education, and extension since the 1980's;

(2) As agriculture moves to a situation where more and more of the farmers income will come from the market, the agricultural research, education, and extension community will need to focus on this, particularly how farmers can produce for the global market; and

(3) The USDA budget and the Farm Bill were to be reconciled to a balanced budget scenario. This forced substantial cuts in the commodity programs. It made little sense to adopt a research title that may not track the future needs of producers in the 21st Century.

As part of the process, the House Agriculture Committee began a comprehensive review of agricultural research, education, and extension programs that included four components:

(1) 57 questions focusing on the research needs of a market-oriented production agriculture industry were distributed to over 100 individuals or organizations. The process was announced by press release, and the 36 responses were compiled in a Committee Print which was distributed to all members of the Committee. In addition, committee staff prepared a summary of the responses which was edited and subsequently published by the Congressional Research Service as an Issue Brief (96-221-ENR);

(2) The General Accounting Office (GAO) was asked to conduct a comprehensive accounting of USDA administered agricultural research, education, and extension programs. This review was completed in March, 1996 and submitted to the Congress (GAO/RECD-96-92);

(3) A series of three hearings were held by the Subcommittee on Resource Conservation, Research, and Forestry focusing on program goals and priority setting; research program administration and results; and information management and dissemination (Extension), respectively in 1996; and

(4) In 1997, the Subcommittee on Forestry, Resource Conservation, and Research held four additional hearings focussing on the current research infrastructure; public-private partner-

ships in agricultural research; public-private partnerships in agricultural extension; and policy options for the Committee's consideration.

Based on the record of these activities, three major themes emerged that the Committee chose to concentrate on during consideration of re-authorizing legislation: public input in developing research priorities; accountability; and leveraging Federal funds.

#### *Public input*

As with any government program, limited funds demand that there be a functional and efficient priority setting process to insure that available funds are available are being used as effectively as possible.

Most observers believe that consolidation of the various research, education, and extension advisory boards accomplished as part of the FAIR Act will facilitate improved coordination of the priority setting process. However, the current mechanism by which the new board obtains and disseminates input is unclear.

#### *Accountability*

Improved public access to research results as well as information concerning how research projects are funded may facilitate increased public support for programs designed to achieve the purposes of agricultural research.

For example, Congress has repeatedly affirmed the authority for the Secretary of Agriculture to shift funds to address emerging research priorities. At the same time, public scrutiny of the process for directing funds to specific projects in the absence of a transparent peer or merit review process has raised questions regarding the quality of associated research results.

#### *Leveraging of Federal funds*

While most organizations agree that investment in research should remain a priority for public funding, the need to balance government budgets has limited the amount of resources available for Agricultural research, education, and extension.

In this regard, while the Agricultural Research Service, academic institutions, and private agri-businesses each have their strengths, the public desire for greater accountability demands more emphasis on role definition and coordination between the various groups. In so doing, the opportunity exists to prevent unnecessary duplication of research efforts and adopt policies which enhance partnerships, thereby increasing the amount of total resources available for these important activities.

## BACKGROUND

#### *Federal agricultural research structure*

Agricultural research, education, and extension is coordinated by the Secretary of Agriculture. Federal funds are distributed to four agencies coordinated under one Undersecretary. The four agencies include the Cooperative State Research, Education, and Extension Service (CSREES), the Agricultural Research Service (ARS), the

Economic Research Service (ERS), and the National Agricultural Statistics Service (NASS).

Of the approximately \$1.8 billion spent on agricultural research, education, and extension programs, about 46% is spent on state-level programs through CSREES, 40% is spent on in-house research programs conducted by the ARS, 3% is directed to economic research conducted in-house by ERS, 6% is spent on statistical services conducted by the NASS, and the remainder is used for buildings and facilities.

#### *Cooperative-State-Research, Education, and Extension Service*

Beginning in the 1850's, Congress, lead by Sen. Justin Morrill, recognized the importance of agriculture to the American economy. To meet the needs of the nation's largely rural population and farm based economy, Congress began passing a series of bills designed to promote agricultural development. Four major pieces of legislation were the Morrill Act of 1862, the Second Morrill Act of 1890, the Hatch Act of 1887, and the Smith-Lever Act of 1914.

#### *Land grant colleges*

In 1862, Congress passed the "Morrill Act" in order to "promote education in agriculture and the mechanical arts." Under this Act, each state was given public lands, provided that the lands be sold or used for profit, and the proceeds be used to establish at least one agricultural college (land grants for the establishment of colleges of agriculture and mechanical arts were also later given to U.S. territories and the District of Columbia).

Public universities existed already in some states; however, most states responded to the Morrill Act by legislating new agricultural and mechanical arts colleges rather than endowing existing state institutions. The act gave rise to a network of often poorly financed colleges known as "1862's." The Second Morrill Act, passed in 1890 however, provided for an annual appropriation to each state to support its land grant college.

In addition to providing funds for education at land grant colleges, the act of 1890 specifically forbade racial discrimination in admissions. A state could avoid the discrimination clause only if separate institutions were maintained and the funds "equitably divided." Thus, the 1890 act led to the establishment of land grant institutions for African Americans. Today, there are 17 1890's institutions (1890's).

Over the decades, as the U.S. economy grew and changed, so did the nature and demands for education and scientific pursuit. As more and more U.S. citizens began to attend college, most colleges of agriculture were transformed into full-fledged universities.

Currently, in addition to the 59 1862's and 17 1890's, there are 15 non-land grant colleges that obtain USDA funds primarily through forestry and natural resource programs authorized under the McIntire-Stennis Act, and 29 tribal colleges which were afforded land grant college status under the Elementary and Secondary Education Re-authorization Act of 1994.

### *State Agricultural Experiment Stations*

The 1862 Morrill Act gave land grant colleges their mandate to teach. In 1887, recognizing the need for research in the agricultural sciences, Congress passed the "Hatch Act" to provide money to each state for the purpose of establishing, within the land-grant college, an Agricultural Experiment Station.

Today, State Agricultural Experiment Stations (SAES) operate in conjunction with and, in almost all cases, on locations at colleges of agriculture. Connecticut and New York, in addition to on-campus SAES's, have an off-campus SAES. Many other states have branch stations, that is, SAES subsidiaries located off-campus and often in agricultural areas of direct interest to the branch station's research.

Most faculty at land grant colleges of agriculture have SAES appointments. This grants them access to "Hatch" research funds administered by USDA-CSREES and distributed to the SAES's on a formula basis.

In regard to research programs conducted at the SAES's, many funding mechanisms exist and vary widely within and between states. Funding sources include USDA (~19%), other non-USDA federal (~12%), other non-federal (~7%), industry (~7%), sales (~5%), and state (~49%).

### *Cooperative extension service*

The final piece of the puzzle was added in 1914 when Congress passed the "Smith-Lever Act." Under this act, the Cooperative Extension Service was created to aid in disseminating to the public useful and practical information about subjects relating to agriculture and home economics and to encourage its application.

Under the Authority of this act, the land-grant colleges and USDA were to cooperate in extension work, which was to consist of instruction and practical demonstration in agriculture and home economics to persons not attending the land-grant college. Information was to be supplied through field demonstration.

Agricultural extension was designed at the outset to be a cooperative program. As a result, funding for these programs has been a joint venture between the federal government, State and local governments, and the land-grant universities. Roughly one-third of extension funding comes from Federal sources, with the remainder coming from State and local government.

Under the authority of the Smith-Lever Act, there are three federal funding mechanisms. Section 3(b) of the Smith-Lever Act provides that each State and the Federal Extension Service shall be entitled to receive annually a sum of money based on a formula which takes into consideration the rural population of each State.

Section 3(c) provides funding to seven "results-oriented" base programs which include: (1) Agriculture; (2) Community Resources and Economic Development; (3) Family Development and Resource Management; (4) 4-H and Youth Development; (5) Leadership and Volunteer Development; (6) Natural Resources and Environmental Management; and (7) Nutrition, Diet and Health.

Section 3(d) are national initiatives, intended to be established for limited time periods in order to develop educational models on which future base programs can be developed. Currently, the na-

tional initiatives include: (1) Expanded Food and Nutrition Education Program (EFNEP); (2) Pest Management; (3) Pesticide Impact Assessment; (4) Farm Safety; (5) Rural Development Centers; (6) Water Quality; (7) Children/Youth and Families at Risk; (8) Food Safety; (9) Indian Reservations; and (10) Sustainable Agriculture.

#### *Agricultural Research Service*

The ARS was established by the Secretary of Agriculture in 1953 under the authority of the Reorganization Act of 1949. Pursuant to the Agricultural Reorganization Act of 1994, ARS includes functions previously performed by the Human Nutrition Information Service and the National Agricultural Library. ARS is USDA's in-house research agency, and as such, conducts basic and applied research in the fields of animal sciences, plant sciences, entomology, soil and water conservation, agricultural engineering, utilization and development, human nutrition and consumer use, marketing, development of integrated farming systems, and development of methods to eradicate narcotic-producing plants.

ARS also directs research beneficial to the United States which can be advantageously conducted in foreign countries through agreements with foreign research institutions and universities, using foreign currencies for such purposes. This program is carried out under the authority of P.L. 480, and the Agricultural Trade Development and Assistance Act.

#### *Special research grants*

In 1965, Congress enacted Public Law 89-106 which established a special research grants program to finance selected programs for a maximum of 5 years. The earmarking of funds by Congress to address specific problems of constituent concern or multistate problems was originally intended to be based on requests transmitted to Congress via the Cooperative State Research Service (now CSREES).

While most observers agree on the need to retain a mechanism for the Administration to direct research funds to issues of national and regional significance, many point out that concerns remain regarding Congressional earmarking, however, to keep this situation in perspective, Special Research Grant earmarks accounted for roughly 2.7% of the entire agricultural research, education, and extension FY97 budget. In FY97, these funds were used to support 109 individual research projects around the country.

#### *Competitive research grants*

The National Agricultural Research, Extension, and Teaching Policy Act of 1977 amended the 1965 act to authorize a Competitive Research Grant Program. This program was further modified in the 1990 Farm Bill in order to create a National Research Initiative (NRI) which was first proposed by the National Academy of Sciences. The NRI is currently authorized at \$500 million per year. However, the NRI has received limited support with funding barely reaching the \$100 million mark. As a result, some groups have suggested that the potential benefits of this program have been significantly muted.

### *Fund for Rural America*

The FAIR Act established a new mandatory spending program, the "Fund for Rural America" (the Fund). One third of the funds are set aside for competitive research activities, another third for rural development activities, and the final third may be used for either research or rural development at the discretion of the Secretary.

The research funds are available for grants to increase international competitiveness, efficiency, and farm profitability; reduce economic and health risks; conserve and enhance natural resources; develop new crops, new crop uses, and new agricultural applications of biotechnology; enhance animal agricultural resources; preserve plant and animal germplasm; increase economic opportunities in farming and rural communities; and expand locally owned value added processing.

### *National Agricultural Research, Education, Extension, and Economics Advisory Board*

Prior to passage of the FAIR Act, there were numerous research advisory boards working within USDA to address issues ranging from agricultural biotechnology to sustainable agriculture to animal health and disease and beyond. In theory, this structure should have provided a forum for constituent groups to discuss individual research priorities and formulate an efficient action agenda for each. Unfortunately, funding limitations prevented most of the boards from meeting at all, as well as significantly limiting the effectiveness of those that were able to meet.

One of the major research policy initiatives adopted in the FAIR Act was to consolidate these various boards into a single board with broad but defined representation, as well as specific statutory mandates designed to guarantee input, and as a result, improve public accountability. In an attempt to allow the Advisory Board some time to become oriented, several issues were not addressed in the FAIR Act, including how the Advisory Board would be integrated throughout the priority setting process.

## SECTION-BY-SECTION ANALYSIS

### *Sec. 1. Short title; Table of contents*

Section 1 states that this Act may be cited at the "Agricultural Research, Extension, and Education Reauthorization Act of 1997".

### **TITLE I—COORDINATION, PLANNING, AND DEFINITIONS REGARDING AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION**

#### *Sec. 101. Priorities and management principles for federally supported and conducted agricultural research, education, and extension*

Section 101 requires the Secretary, in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board (Advisory Board) and persons who conduct or use agricultural research, to establish priorities for Federally funded

agricultural research, extension, and education activities that are conducted by or funded by the Department.

This section also adds a list of management principles for research, education, and extension activities funded by the Department to ensure that Federal funding integrates information dissemination, encourages multi-institutional and multi-State programs to better leverage resources, and is awarded to the best equipped facility.

The Committee intends that the Advisory Board, in order to insure that the views of agricultural producers are adequately addressed, develop a user-driven approach for developing recommendations regarding research, extension, and teaching priorities. The Advisory Board shall solicit the opinions and recommendations of the users of agricultural research, extension, and education in advance of making policy recommendations to the Secretary.

*Sec. 102. Principal definitions regarding agricultural research, education, and extension*

Section 102 amends the definition of "Food and Agricultural Sciences" as it currently appears in the National Agricultural Research, Extension, and Teaching Policy Act of 1977 to simplify the references to animal and plant production and health; specify food safety as a research objective; substitute the term "rural human ecology" for rural community welfare and development; and add information management, technology transfer, and agricultural biotechnology as subject areas under the food and agricultural sciences.

Subsection (b) clarifies that references to "Teaching" shall mean "Teaching and Education."

Subsection (c) defines "in-kind support" and designates the definitions included in the National Agricultural Research, Extension, and Teaching Policy Act of 1977 as the principle definitions when used in this title or any law pertaining to the Department of Agriculture relating to research, extension, or education regarding the food and agricultural sciences unless the context requires otherwise.

The Committee is aware of regulations (7 C.F.R. 3019.23) which specify what contributions qualify as "in-kind" support and intends that the Secretary should refer to these regulations in implementing this section.

*Sec. 103. Consultation with National Agricultural Research, Extension, Education, and Economics Advisory Board*

Section 103 amends section 1408 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 by requiring that the Advisory Board, whenever there is a required consultation, solicit opinions and recommendations from persons who will benefit from and use Federally funded agricultural research, extension, education, and economics. Whenever the Secretary proposes to perform any duty or activity that requires the Secretary to consult or cooperate with the Advisory Board or authorizes the Advisory Board to submit recommendations with regard to that duty or activity, the Secretary shall solicit written opinions and recommenda-

tions from the Advisory Board and provide a written response to the Advisory Board regarding the manner and extent to which the Secretary will implement the recommendations.

The Committee expects that the written recommendations of the Advisory Board and the written responses of the Secretary should be available to the general public, either in published or electronic format, in a timely manner. Further, the Committee believes that such information can be made available to the public within 10 days and expects the Secretary to work toward that goal.

*Sec. 104. Relevance and merit of federally funded agricultural research, extension, and education*

Section 104 amends subtitle K of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 by inserting a new section before section 1463. This new section requires the Secretary to establish procedures to ensure scientific peer-review of each agricultural research grant funded on a competitive basis by CSREES. The Secretary, in consultation with the Advisory Board, must establish procedures that ensure merit review of each agricultural extension or education grant competitively funded by CSREES.

When formulating a request for proposals involving an agricultural research, extension, or education activity funded on a competitive basis, the Secretary shall solicit and consider input from the Advisory Board and users of agricultural research, extension, and education regarding the request for proposals from the previous year. If the activity has not been the subject of a previous request for proposals, the Secretary shall solicit and consider input from the Advisory Board and users of such research, extension, and education.

This section requires the Secretary to establish procedures for a scientific peer-review of all research activities conducted by the Department. A review panel comprised of individuals with scientific expertise, majority of which can not be USDA employees, shall verify that each research project has scientific merit, and the panel shall review each research activity at least once every three years.

Beginning October 1, 1998, each 1862 and 1890 Institution shall develop a process for merit review of the activity and review the activity in accordance with that process as a condition for receiving Federal formula funds for research or extension.

Beginning October 1, 1998, each 1994 Institution shall develop a process for merit review of the activity and review the activity in accordance with that process as a condition for receiving Federal formula funds for extension.

This section repeals outdated provisions of the Smith-Lever Act, Hatch Act of 1887, and the National Agricultural Research, Extension, and Teaching Policy Act of 1977 that require the Secretary to report to the President when the Secretary withholds funds from a land-grant college or university.

The Committee understands the efficiency and cost effectiveness of using scientific experts from within an agency to review the work of the agency. However, the Committee intends that the Secretary should, to the maximum extent possible, ensure the credibil-

ity and quality of the research conducted by minimizing any individual agency's influence over the peer review of its own work.

While wanting to encourage multi-state cooperation, the Committee recognizes that regional research within a state fulfills the test of national significance and therefore should be considered by the Secretary as qualifying under this standard.

*Sec. 105. Expansion of authority to enter into cost-reimbursable agreements*

Section 105 amends section 1473A of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 to expand current authority of the Secretary to enter into cost-reimbursable agreements with State cooperative institutions (i.e. land-grant colleges and universities) for the acquisition of goods and services, including personnel services, to carry out agricultural research, extension, or teaching activities of mutual interest by additionally allowing the Secretary to enter into such agreements with any college or university.

The Committee expects the Department to fully use this new authority in an inclusive manner utilizing the resources of all land grant and non-land grant institutions with a demonstrated expertise in food and agricultural sciences.

*Sec. 106. Evaluation and assessment of agricultural research, extension, and education programs*

The Secretary shall create guidelines for performance measurement of agricultural research, extension, and education programs and then conduct an evaluation to determine whether agricultural research, extension, and education programs conducted or funded by the Department result in public benefits that have national or multi-State significance.

The Committee recognizes that a performance evaluation is needed to produce a consensus based set of guidelines to evaluate the performance and rates of return for agricultural research, extension, and education programs. These guidelines should cover the spectrum from broad programs to specific projects and activities, basic to applied work, and across the social, biological, and physical sciences. The evaluation team should draw from land grant university personnel and USDA representatives implementing Government Performance and Results Act (GPRA). To ensure an unbiased evaluation, the Committee expects the Secretary to make the leadership of this evaluation independent of the Department of Agriculture.

The Committee is concerned with the final GPRA strategic plan submitted on September 30, 1997 by the Research, Education, and Economics mission area (REE). Specifically, the Committee has identified four areas in the REE strategic plan which should be addressed by the Secretary.

1. The strategic plan incorporates goals which the Committee believes are too general and broad in scope and which do not seem to reflect the goals of the research mission but rather reflect the goals of the agencies and departments which the research mission is supposed to support. The Committee expects REE to rework its

strategic plan to reflect the goals of the research mission specifically.

2. The strategic plan makes no mention of who the relevant REE customers are or how their input was incorporated in the construction of the strategic plan. The Committee is concerned that the level of input from users of agricultural research, extension, and education which occurred in the development of the REE strategic plan was insufficient. Input from relevant and affected parties within the research mission must be more aggressively sought in future Results Act planning by REE.

3. The strategic plan identifies no duplication or overlap of agency or departmental functions.

4. The strategic plan provides no discernable baseline projections or targets. With the current broadly based goals borrowed from the agencies which the research mission is meant to serve, the committee does not see how the REE strategic plan can successfully link outputs to outcomes for purposes of performance measurements without first focusing on its own goals.

The Committee expects REE to act on these recommendations and report to the relevant committees before the performance measures are delivered to the Congress in the Department's Budget recommendations for fiscal year 1999.

## TITLE II—REFORM OF EXISTING RESEARCH, EXTENSION, AND EDUCATION AUTHORITIES

### Subtitle A—Smith-Lever Act and Hatch Act of 1887

#### *Sec. 201. Adoption of short titles for Smith-Lever and Hatch Act of 1887*

Section 201 amends the Smith-Lever and Hatch Acts to include short titles of each Act.

#### *Sec. 202. Consistent matching funds requirements under Hatch Act of 1887 and Smith-Lever Act*

Subsection (a) amends the Hatch Act of 1887 to clarify that States receiving Federal formula funds for research and education under the Act must provide a minimum of a one-to-one match with non-Federal dollars for each fiscal year and eliminates a 1955 amendment that gave States a \$90,000 allocation before requiring the one-to-one match. This section requires the Secretary to withhold the difference between the total amount that should have been provided and the non-Federal funds that were actually provided during the fiscal year from States which fail to provide matching funds for the fiscal year. The Secretary shall re-apportion withheld funds among the States satisfying the matching requirement for the fiscal year, and the re-apportionment shall be subject to the match requirement. An exception to the match requirement is granted to States for funds received for regional research.

Subsection (b) amends the Smith-Lever Act to clarify that States receiving Federal formula funds for extension under the Act must provide a minimum of a one-to-one match with non-Federal dollars for each fiscal year. The section requires the Secretary to withhold the difference between the total amount that should have been pro-

vided and the non-Federal funds that were actually provided during the fiscal year from States which fail to provide matching funds for any fiscal year. The Secretary shall re-apportion withheld funds among the States satisfying the matching requirement for the fiscal year, and the re-apportionment shall be subject to the match requirement. An exception to the match requirement is granted for matching funds to 1994 Institutions.

Throughout the hearing process, the Committee received testimony regarding the need to maximize federal resources spent on agricultural research, extension and education. In addition, the agricultural community expressed the need for leveraging federal dollars with non-federal resources. As a result, the Committee considers it important that all federal dollars going to land-grant institutions should be leveraged with non-federal funds to the maximum extent possible.

*Sec. 203. Plans of work to address critical research and extension issues and use of protocols to measure success of plans*

Section 203 amends section 4 of the Smith-Lever Act. Beginning October 1, 1998, as a condition of receipt for Federal formula funds for extension, this section requires that institutions develop a plan of work that contains a description of important State agricultural issues and activities in which two or more State institutions cooperate to address those issues; identifies other colleges and universities in the State and other States with capacity to participate in current and emerging efforts towards improved collaborations; and provides a summary of current programs. The Secretary, in consultation with the Advisory Board and land-grant colleges and universities, shall develop protocols to be used to evaluate the plans of work. To the extent practicable, the Secretary shall consider how plans of work submitted under this section may satisfy other appropriate Federal reporting requirements.

This section amends section 7 of the Hatch Act of 1887. Beginning October 1, 1998, as a condition of receipt for Federal formula funds for extension, this section requires that institutions develop a plan of work that contain a description of important State agricultural issues and activities in which two or more State institutions cooperate to address those issues; describes the consultation process with users of funds; identifies other colleges and universities in the State and other States with capacity to participate with them in current and emerging efforts towards improved collaborations; and provides a summary of current programs. The Secretary, in consultation with the Advisory Board and land-grant colleges and universities, shall develop protocols to be used to evaluate the plans of work.

The Secretary may delay the applicability of these requirements until October 1, 1999 if the Secretary finds that the State will be unable to meet such requirements despite good faith efforts.

In keeping with the Committee's goal of leveraging federal funds and maximizing public/private partnerships, the Committee expects the Secretary to ensure that the recipients of federal research and extension formula funds shall make all reasonable efforts to partner with other institutions in their states or institutions in other parts of the country which may have similar goals and objectives.

The Committee intends for Sec. 203 and Sec. 211 to ensure that federal funds provided for research, extension and education be managed so as to maximize the impact of the federal investment through coordinating and integrating research, extension and education projects and programs, minimizing unnecessary duplication, and fostering appropriate partnerships with other institutions and organizations to solve specific problems.

The Committee is well aware that the Secretary is charged to develop protocols to account for federal investments through the Government Performance and Results Act (GPRA). As well, there are a number of activities through which the Department and the States are working to report on State research, extension and education activities, including the development of impact statements, improvements to the Current Research and Information System (CRIS), and the development of a new Research, Extension, and Education Information System (REEIS) authorized in the 1996 Farm Bill. In addition, there are additional federal reporting requirements and processes. Each of the reporting activities and processes are somewhat different in scope and purpose, but it is the intent of Committee that the Department and the land-grant institutions work together to develop as integrated a reporting process as is possible. The protocols and requirements for these plans of work should be developed in such a way that they are not duplicative of other federal reporting requirements; paperwork and bureaucracy should be minimized. The Committee expects that the plans of work fulfill the reporting requirements anticipated from the Department under GPRA. The States should not be required to provide the same information to the Federal government more than once. Moreover, the plans of work are not intended to provide exhaustive lists or compendiums. Plans of work should include a simple summary of basic and readily obtainable data.

#### **Subtitle B—National Agricultural Research, Extension, and Teaching Policy Act of 1977**

##### ***Sec. 211. Plans of Work for 1890 Institutions to address critical research and extension issues and use of protocols to measure success of plans***

Section 211 amends section 1444(d) of the National Agricultural Research, Extension, and Teach Policy Act of 1977. Beginning October 1, 1998, as a condition of receipt for Federal formula funds for extension, 1890 Institutions shall develop a plan of work that contains a description of important State agricultural issues and activities in which two or more State institutions cooperate to address those issues; describes the consultation process with users of funds; identifies other colleges and universities in the State and other States with capacity to participate with them in current and emerging efforts towards improved collaborations; and provides a summary of current programs. The Secretary, in consultation with the Advisory Board and land-grant colleges and universities, shall develop protocols to be used to evaluate the plans of work. To the extent practicable, the Secretary shall consider plans of work submitted under this section to satisfy other appropriate Federal reporting requirements.

This section requires that beginning October 1, 1998 as a condition of receipt for Federal formula funds for research, 1890 Institutions shall develop a plan of work that contains a description of important State agricultural issues and activities in which two or more State institutions cooperate to address those issues; identifies other colleges and universities in the State and other States with capacity to participate with them in current and emerging efforts towards improved collaborations; and provides a summary of current programs. The Secretary, in consultation with the Advisory Board and land-grant colleges and universities, shall develop protocols to be used to evaluate the plans of work.

The Secretary may delay the applicability of these requirements until October 1, 1999, if the Secretary finds that the eligible institution will be unable to meet such requirements despite good faith efforts.

(Note: See Committee Intent for Section 203 of this Section-by-Section Analysis.)

*Sec. 212. Matching funds requirement for research and extension activities at 1890 land-grant colleges, including Tuskegee University.*

Section 212 amends the National Agricultural Research, Extension, and Teaching Policy Act of 1977 to phase-in a non-Federal matching requirement for research and extension formula funds to 1890 Institutions. In fiscal year 1999, 1890 Institutions shall submit a report describing sources of non-Federal funds available to the institution for fiscal year 1999. The phase-in schedule begins in fiscal year 2000 with 70% of the formula allocation requiring no match and 30% requiring a non-Federal match. In fiscal year 2001, the matching requirement increases to 45% of the Federal allocation; and 50% in fiscal year 2002 and thereafter. Based on the 1999 report, the Secretary may waive the match requirement for specific institutions in the fiscal year 2000; however, these institutions would be required to make the 45% match for fiscal year 2001.

Non-Federal matching funds may be directed to agricultural research, extension, or teaching programs at the discretion of the 1890 institution. The Secretary shall withhold the difference between the total amount that should have been provided and the non-Federal funds that were actually provided during the fiscal year from States which fail to provide funds for the fiscal year. The Secretary shall redistribute the withheld funds to other eligible 1890 institutions satisfying the matching funds requirement for that fiscal year, and the re-apportioned funds shall be subject to a match requirement.

For more than 25 years the Congress has provided funding to the 1890 colleges and universities to carry out their land grant functions. For the most part, the respective States have provided only limited support to these institutions. At the same time, these States have provided substantial and sustained support to the 1862 land grant institutions.

The 1890 institutions play an integral role in the agricultural research capacity of this country; however, the Committee is concerned about their reliance on federal dollars in many cases. The Committee expects that the 1890 institutions would dramatically

increase and improve their land grant programs and services if additional non-Federal funds were provided. To this end, the Committee intends that the States should increase support to 1890 institutions for their land grant functions.

The Committee's intent in including this provision is not to jeopardize the current funding of the 1890 institutions, but to encourage States and other sources to share in the responsibility for funding agricultural research and extension activities. These additional funds will help to sustain and enhance the agricultural research and extension capabilities for the next century.

The Committee expects that those states that currently provide funds to their 1890 institutions would continue to do so at no less than the current levels provided. The Committee intends that the matching requirements specified in this bill are to be the minimum level of support expected from states and other sources.

#### *Sec. 213. International research, extension, and teaching*

Section 213 adds the word "teaching" throughout Section 1458 of the National Agriculture Research, Extension, and Teaching Policy Act of 1977 concerning international agricultural research and extension programs. In the case of the cooperative agreement entered into between the Secretary and Israel, the full amount of appropriated funds shall be transferred directly to the Binational Agricultural Research and Development Fund. This section prohibits the Secretary from retaining any portion of the funds for overhead or any other administrative expense.

The Committee intends that in managing the competitive research grants under the authority of the Binational Agricultural Research and Development Program, the Board of Directors shall ensure eligibility for all colleges and universities with expertise in food and agricultural sciences.

#### *Sec. 214. Task Force on 10-year strategic plan for agricultural research facilities*

Section 214 repeals the Research Facilities Act but transfers the existing authority for the task force on agriculture research facilities to the National Agriculture Research, Extension, and Teaching Policy Act of 1977.

### **Subtitle C—Food, Agriculture, Conservation, and Trade Act of 1990**

#### *Sec. 231. National Agricultural Weather Information System*

Section 231 amends Subtitle D of title XVI of the Food, Agriculture, Conservation, and Trade Act of 1990 to provide that section 1637 of the Act may be cited as the "National Agriculture Weather Information System Act of 1997."

This section authorizes the Secretary to establish the National Agricultural Weather Information System (NAWIS). The Secretary may enter into contracts, grants, cooperative agreements, and interagency agreements with other Federal and State agencies to support the development and dissemination of agricultural weather and climate information; to collect weather data through regional and State agricultural weather information systems; to coordinate the weather activities of the Department of Agriculture with other

Federal agencies and the private sector; to make grants regarding State and regional agricultural weather information systems; and to encourage private sector participation in NAWIS activities. This section also authorizes a competitive grants program to support projects to improve the manner in which agricultural weather and climate information is collected, retained, and distributed.

This section prohibits more than two-thirds of the funds appropriated for the subtitle to be used for work with the National Oceanic and Atmospheric Administration. This section also prohibits the Secretary from awarding any grant funds for the construction of facilities and limits the purchase of equipment with grant funds to no more than the lesser of one-third of the award or \$15,000.

This authorizes \$15,000,000 to be appropriated for each of the 1998 through 2002 fiscal years to carryout the purposes of the revised subtitle.

The Committee is keenly aware of the budget restrictions imposed upon the National Weather Service and the impacts of those cuts on specialized agricultural weather services. The recent closure of Agricultural Weather Service Centers has resulted in the loss of weather data from important agricultural areas that are not now being provided adequately by the National Weather Service. The Committee recognizes that the recent National Weather Service proposal to discontinue funding for the six Regional Climate Centers will result in the loss of data and jeopardize the future of the cooperative reporting network which is the source of invaluable agricultural weather data used by National Weather Service forecasters, USDA analysts, university researchers, and the private sector. The Committee expects that the National Agricultural Weather Information System will address this deficiency in data as expeditiously and effectively as possible.

The intent of NAWIS is to re-establish and maintain a national infrastructure for the collection of agricultural weather observations. The Committee recognizes that the establishment of this infrastructure was not intended to be done under the privatized agricultural weather system. The Committee acknowledges that the private sector has expanded and agricultural weather services are, or soon will be available nationwide. the Committee expects the private to use NAWIS agricultural weather observations in the preparation of agricultural weather forecasts, products, and advisories. NAWIS will enhance the ability of private sector firms in providing these services, not compete with the private sector.

In developing this section, the Committee specifically authorized the Secretary to encourage private sector participation in the system through coordination with the private sector, including co-operation in the generation of weather and climate data useful for site-specific agricultural weather forecasting. The Committee therefore expects the Secretary to evaluate the current status and future potential of private sector involvement in agricultural weather information collection and dissemination.

#### *Sec. 232. Agricultural genome initiative*

Section 232 amends the heading of Section 1671 of the Food, Agriculture, Conservation, and Trade Act of 1990 to "Agricultural Genome Initiative." The Secretary shall conduct research for the pur-

poses of supporting basic and applied research and technology, studying and mapping agriculturally significant genes, ensuring that current gaps in existing agricultural genetics knowledge are filled, and preserving diverse germplasm and biodiversity.

Grants made under this section shall be awarded on a competitive basis, and no funds awarded under this section may be used to fund construction. A one-to-one match or in-kind support is required for any grant which is to benefit a specific commodity. The Secretary may waive the matching requirement with respect to an individual project if (1) the Secretary determines the results of the project, while of particular benefit to a specific commodity, are likely to be applicable to agricultural commodities generally or (2) the project involves a minor commodity, deals with scientifically important research, and the grant recipient would be unable to satisfy the matching requirement.

This section authorizes the necessary funds to be appropriated for each of the 1998 through 2002 fiscal years to carryout the purposes of the revised section.

With regard to the matching funds required under this section, the Committee intends that this apply to all research projects where the results are intended to support a specific agricultural commodity.

The Committee encourages the Secretary to utilize funds provided under this section to make research grants for the purpose of studying resistance to plant and animal diseases which cause severe economic hardship for producers.

#### Subtitle D—National Research Initiative

##### *Sec. 241. Waiver of matching requirement for certain small colleges and universities*

Section 241 amends the matching requirement provision for equipment purchase of the National Research Initiative, Competitive Grants Program to provide that the Secretary may waive all or a portion of the matching requirement in the case of small colleges or universities if (1) the cost of the equipment does not exceed \$25,000 and (2) has multiple uses within a single research project or is usable in more than one research project.

#### Subtitle E—Other Existing Laws

##### *Sec. 251. Findings, authorities, and competitive research grants under Forest and Rangeland Renewable Resources Research Act of 1978*

Section 251 amends the congressional statement of findings and purposes of the Forest and Rangeland Renewable Resources Act of 1978. The Secretary is authorized to conduct, support, and cooperate in forestry and rangeland research and education that is of the highest priority to the United States and users of public and private forest lands and rangelands in the United States. This section includes 5 priorities for Federal forest and range research and education which include: the biology of forest and range organisms; functional characteristics and cost-effective management of forest and rangelands ecosystems; interactions between humans and for-

ests and rangelands; wood and forage as a raw material; and international trade, competition, and cooperation.

In compliance with other existing law, the Secretary shall inventory and analyze public and private forests and their resources at least every five years as compared with the current eight to ten years. The Secretary shall also prepare a State forest inventory for each State. At least every five years, the Secretary shall prepare a report that contains a description of the State forest inventories, analyzes the results of the annual nationwide reports, and analyzes forest health trends.

This section also modifies the competitive grants authority under the Forest and Rangeland Renewable Resources Act of 1978 to allow the Secretary to use up to 5% of appropriated funds to make competitive grants for forestry research and up to 5% for rangeland research in the five priority areas. The Secretary shall give priority to proposals with collaborative research, matching funds, and in cooperation with existing research efforts.

Amendments to Section 3 of the Forest and Rangeland Renewable Resources Research Act of 1978 require the United States Forest Service, in cooperation with the State forester or head of the forestry agency in each State, to conduct an annual inventory of each state's forests and associated resources. It is the intent of the Committee that this process be carried out through the development and implementation of a strategic plan, in coordination with Federal land management agencies, State foresters, the forest industry, and other important interest groups.

The Committee expects that the Secretary, in cooperation with the State foresters and the forestry community, shall use the strategic plan to prioritize the states for purposes of collecting annual inventory data. The Committee recognizes that some states may not require an annual inventory update based on the size of the forest resource, unique conditions and circumstances, and other factors. The Committee urges the Secretary to accommodate such circumstances, when requested by the State forester, and to describe in the strategic plan the reasons for each such accommodation.

The Committee recognizes that confidentiality of information gathered from private land is essential to the continued success of the Forest Inventory and Analysis program. The Committee acknowledges that the inventory information gathered by Forest Service personnel is currently aggregated at a regional and state level in order to ensure this strict confidentiality. It is the intent of the Committee that such confidentiality continue during the administration of the improved Inventory and Analysis program established under this Act.

The Forestry Inventory and Analysis Program mission has historically been to improve the understanding and management of our nation's forests by maintaining a comprehensive inventory of key data used by forest planners and land owners. Such data include forest tree species type, current inventory, forest tree and vegetation growth, mortality and removals. It is the expectation of the Committee that the collection and analysis of such data will continue to be the principal focus of the improved forest inventory and analysis program. The Committee further expects that any

change, expansion or shift in program emphasis will be made in close cooperation with state forester, forest landowners and other primary constituents of the program.

The Competitive Research Grants program provides an important mechanism for the Forest Service to cooperate with and build trust among the various groups interested in forestry and rangeland research, as well as address priorities on state, and private industrial, and to a greater extent, non-industrial lands. The competitive Grants program is intended to be in addition to other Cooperative Research Agreements and relationships the Forest Service has with its cooperators. The Committee strongly encourages the Secretary to utilize this authority to establish a competitive grants program within the next fiscal year and address collaborative research in its long-range strategic planning. The Committee expects the Forest Service to maximize leveraging of outside cooperation and sources of funding through competitive grants and other cooperative programs.

The Committee encourages the Secretary, when making competitively awarded research grants under section (3) of the Forest and Rangeland Renewable Resources Research Act as amended, to give priority to research initiatives to increasing the productivity of non-industrial private forest lands through emphasis on spatial information technologies, growth and yield relationships for bottomland hardwoods, intensive management systems for yellow pine plantations and their impact on wildlife populations, and improved harvesting and utilization technologies for yellow pine plantations. When making grants under this section, the Committee recommends that the Secretary give preference to research proposals that are conducted as part of an existing private and public partnership or cooperative research effort and involves several interested research partners

The Committee recognizes the importance of both private and public-owned range and pasture lands. It is the committee's intent to provide greater emphasis on this vitally important area of research and extension programming. Rangelands and pasturelands, covering 55 percent of the land area in the United States, are highly important economically and environmentally. They are the dominant land type in many of our 50 states and territories, and include grasslands, shrublands, deserts, riparian areas, tundra, and coastal marshes. More than half of these lands are privately owned, 43 percent are owned by the federal government, and the remainder are owned by state and local governments. These lands provide a wide array of goods and services, such as: food, water and habitat for wild and domestic animals; water for municipal and industrial uses; mineral and energy resources; and scenic, open spaces for recreational activities. Today, we are challenged by new questions about the condition and sustainability of many of these lands and their associated resources, arising in part from debates over proper uses of public lands, concepts underlying the methods used for land/resource management and assessment, and potential impacts associated with climate and environmental changes. The current debate over these issues suffers from lack of an adequate research base.

It is the intent of the Committee that research priorities for rangelands and pasturelands be established through the process outlined in Sections 101 of this bill.

The Committee strongly urges the Forest Service to utilize the specific forestry research priorities identified by the Forestry Research Advisory Council (FRAC), within the parameters of the broad priorities outlined in this Act, to guide its Competitive Research Grants program. The Committee expects the Forest Service to report to Congress annually on how it is incorporating FRAC research priorities into the grants program. If the Forest Service chooses other research priorities, the Committee expects the agency to explain why those priorities should be different than those established by the FRAC.

### **TITLE III—NEW RESEARCH, EXTENSION, AND EDUCATION INITIATIVES**

#### ***Sec. 301. National Research Initiative under Competitive, Special, and Facilities Research Grant Act***

Section 301 reauthorizes existing research program until fiscal year 2002.

#### ***Sec. 302. Equity in Educational Land-Grant Status Act of 1994***

Section 302 reauthorizes existing program at tribal colleges until fiscal year 2002.

#### ***Sec. 303. Education grants programs for Hispanic-serving institutions***

Section 303 reauthorizes existing program until fiscal year 2002.

#### ***Sec. 304. General authorization for agricultural research programs***

Section 304 reauthorizes existing research programs until fiscal year 2002.

#### ***Sec. 305. General authorization for extension education***

Section 305 reauthorizes existing program until fiscal year 2002.

#### ***Sec. 306. Grants and fellowships for food and agricultural science education***

Section 306 reauthorizes existing program until fiscal year 2002.

#### ***Sec. 307. Grants for research on the production and marketing of alcohols and industrial hydrocarbons from agricultural commodities and forest products***

Section 307 reauthorizes existing program until fiscal year 2002.

#### ***Sec. 308. Policy research centers***

Section 308 reauthorizes existing program until fiscal year 2002.

The Federal government focus on research has emphasized those tasks which no other segment of society either can or will provide. In most cases that focus has been basic or pure research.

Yet, with respect to applied policy and markets research in the agricultural sector, neither the private sector nor state and local governments have provided such research that is broadly available,

informative and timely. It has fallen to the federal government, through the centers of rural and agricultural policy and markets research, to provide core institutional support to sustain applied policy research.

These institutions provide a valuable, independent source of policy analysis that is not addressed by private sector or local- and state-funded research. Policy analysis research has neither the proprietary value for private sector funding nor the specific geographical focus to stimulate state and local government funding. The rich data bases and detailed analytical methodology of the policy centers enables them to provide policy decision support appropriate to national, state, and local policy makers.

In contrast, competitively awarded research grants are inclined to focus on new analytic methods, often independent of extended data sets. Even when available in a timely fashion, competitive grant research, which is likely to favor more basic than applied research and tends to be reductionist, often oversimplifies the complex reality and nuances that policy makers face.

At the national level, policy center analysis has assisted policy makers in modifying national policies through a better understanding of the local, national and international impacts. The long term effect of the centers' research has been to enhance policy stability. The independence and reliability of the centers' research have given Congress analysis to focus debate on policy, rather than on disputes over specific estimates and analytic techniques. Congressional confidence in the centers' research has grown as baseline projections and policy option analysis is continually subjected to review from university and government researchers as well constituent groups affected by policy decisions. The centers' research has also proved useful in especially contentious and difficult policy issues by validating the analysis in and outside of government of those advocating a particular position. The confidence arising from the centers' independence and continuity has resulted in less abrupt shifts in policy than might otherwise be the case.

With a funding level of \$3.7 million in recent years, these centers in more than 10 universities have collaborated on their research with over 150 scientists in 16 disciplines in more than 60 universities and 40 states. When the Federal government seeks to leverage its resources to increase agricultural research, it is the Committee's intent that centers for rural and agricultural policy and markets research should continue to be funded and utilized.

*Sec. 309. Human nutrition intervention and health promotion research program*

Section 309 reauthorizes existing program until fiscal year 2002.

*Sec. 310. Pilot research program to combine medical and agricultural research*

Section 310 reauthorizes existing program until fiscal year 2002.

*Sec. 311. Food and nutrition education program*

Section 311 reauthorizes existing program until fiscal year 2002.

*Sec. 312. Animal health and disease continuing research*

Section 312 reauthorizes existing program until fiscal year 2002.

*Sec. 313. Animal health and disease national or regional research*

Section 313 reauthorizes existing program until fiscal year 2002.

*Sec. 314. Grant program to upgrade agricultural and food sciences facilities at 1890 land-grant colleges*

Section 314 reauthorizes existing program until fiscal year 2002.

*Sec. 315. National research and training centennial centers*

Section 315 reauthorizes existing program until fiscal year 2002.

*Sec. 316. Supplemental and alternative crops research*

Section 316 reauthorizes existing program until fiscal year 2002.

*Sec. 317. Aquaculture research and extension*

Section 317 reauthorizes existing program until fiscal year 2002.

*Sec. 318. Rangeland research*

Section 318 reauthorizes existing program until fiscal year 2002.

*Sec. 319. Federal agricultural research facilities*

Section 319 reauthorizes existing program until fiscal year 2002.

*Sec. 320. Water quality research, education, and coordination*

Section 320 reauthorizes existing program until fiscal year 2002.

The Committee encourages the Department to continue research into the effect of various agricultural drainage practices on water quality and flooding including, but not limited to, evaluations of ridge till, minimum till, no till, moldboard plowing, chisel plowing, pattern tiling, surface versus subsurface intakes, filter strips, and buffer zones around intake points.

The Committee intends that the Secretary should use this authority by promoting the adoption of incentive based, voluntary best management practices that maintain water quality. The Committee recommends that the Secretary consider utilizing resources under this authority to develop demonstration projects involving cooperation between State and Federal government entities, private sector, and commodity organizations.

*Sec. 321. National genetics resources program*

Section 321 reauthorizes existing program until fiscal year 2002.

*Sec. 322. Agricultural telecommunications program*

Section 322 reauthorizes existing program until fiscal year 2002.

*Sec. 323. Assistive technology program for farmers with disabilities*

Section 323 reauthorizes existing program until fiscal year 2002.

The Committee recognizes that people with disabilities are a vital part of America's agricultural and rural workforce and economy. Over 500,000 farmers and ranchers have physical impairments that limit their ability to perform one or more essential farm tasks. Annually, 200,000 agricultural workers are injured in farm-

related accidents, with thousands incurring permanent disabilities. Tens of thousands more in the agricultural community develop disabilities in ways unrelated to farming, including auto accidents, cancer, heart disease, diabetes, and the process of aging. With some support, the majority of these individuals can continue to earn their livelihoods in agriculture.

Seven years ago, the Easter Seal Society apprised the Committee of the quiet crisis among disabled farmers and ranchers, who were "falling through the cracks" of rural service delivery systems and being needlessly forced out of agriculture. At that time, and in much of the country today, farmers, ranchers, and farm workers with disabilities were unable to obtain services otherwise available to urban residents with disabilities, or were offered services that failed to address the unique circumstances of their agricultural occupations and lifestyles.

The Congress responded by creating the U.S. Department of Agriculture (USDA), AgrAbility Program in the 1990 Farm Bill, to mobilize the expertise of State Cooperative Extension Services and nonprofit disability agencies to jointly provide practical, hands-on education and assistance to enable people with disabilities and their families to succeed in agricultural production. Each year, State level partnerships formed by an Extension Service and one or more disability organizations compete for USDA AgrAbility funding. Successful applicants receive a four year commitment of support from the USDA, after which time, they must compete again. Since 1991, twenty-two States have received Federal support to initiate and sustain AgrAbility projects.

The Committee is concerned that the funding floor established in the 1990 Farm Bill for State AgrAbility projects has yet to be reached by a single State project. Although support at lesser amounts was reasonable in launching the program years ago, current allocations of about half of that needed to support mature statewide programs is causing farm and ranch families in need to be put on waiting lists for help; is forcing the downsizing of rural professional education efforts; and is placing undue strain on dedicated staff that are too few in number. The Committee also recognizes that agricultural producers in States not served by AgrAbility are significantly hindered in their attempts to make disability-related accommodations in their farm or ranch operations.

The Committee expects the Secretary to fully utilize and integrate the spirit and expertise of AgrAbility and its proponents, such as the Easter Seals Society, in departmental operations and programs to improve opportunities for people with disabilities who work in agriculture and related occupations.

#### *Sec. 324. National Rural Information Center Clearinghouse*

Section 324 reauthorizes existing program until fiscal year 2002.

#### *Sec. 325. Critical Agricultural Materials Act*

Section 325 reauthorizes existing program until fiscal year 2002.

## Subtitle B—Repeals

### *Sec. 341. Aquaculture research facilities*

Section 341 repeals Section 1476 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 which authorized research grants for aquaculture at only two institutions.

### *Sec. 342. Agricultural research program under National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1981*

Section 342 repeals Section 1432 (b) of the National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1981 which authorized a dairy goat research grant.

### *Sec. 343. Livestock product safety and inspection program*

Section 343 repeals Section 1670 of the Food, Agriculture, Conservation, and Trade Act of 1990 which authorized the Assistant Secretary for Science and Education to make a research grant for livestock product safety and inspection.

### *Sec. 344. Generic authorization of appropriations*

Section 344 repeals an unnecessary appropriations authorization.

## TITLE IV—NEW RESEARCH, EXTENSION, AND EDUCATION INITIATIVES

### Subtitle A—Partnerships for High-Value Agricultural Product Quality Research

#### *Sec. 401. Definitions*

Section 401 defines “eligible partnership,” “high-value agricultural product,” and “Secretary.”

#### *Sec. 402. Establishment and characteristics of partnerships*

Section 402 authorizes the Secretary to make competitive grants to establish partnerships to coordinate and manage research and extension activities to enhance the quality of high-value agricultural products. The primary institution involved in a partnership shall be a land-grant college or university acting in partnership with other colleges or universities, nonprofit research and development entities, and Federal laboratories. Partnerships shall prioritize research and extension activities to enhance the competitiveness of agricultural products, increase agricultural exports, and substitute such products for imports.

The partnership may address a spectrum of production, processing, packaging, transportation, and marketing issues regarding effective and environmentally responsible pest management alternatives and biotechnology, genetic research, refinement of field production practices, processing and packaging technology, and research to facilitate diversified, value-added enterprises in rural areas.

*Sec. 403. Elements of grant making process*

Grants may be awarded for a maximum of 5 years with a possibility for renewal. The Secretary shall give preference to multi-institutional proposals that guarantee matching funds in excess of the required amount. The non-Federal sponsors of a partnership shall contribute, at a minimum, the same amount awarded by the Federal Government.

*Sec. 404. Authorization of appropriations and related provisions*

Section 404 authorizes the necessary funds to be appropriated for this subtitle for fiscal years 1998 through 2002.

**Subtitle B—Precision Agriculture**

*Sec. 411. Definitions*

Section 411 defines “precision agriculture” as an integrated information and production-based farming system that is designed to increase long-term, site specific and whole farm production efficiencies, productivity, and profitability while minimizing unintended impacts on wildlife and the environment in specified ways. This section also defines “precision agricultural technologies,” “Advisory Board,” “agricultural inputs,” “eligible entity,” and “systems research.”

*Sec. 412. Competitive grants to promote precision agriculture*

Section 412 authorizes the Secretary, in consultation with the Advisory Board, to make 5 year competitive grants for research, education, or information dissemination projects for precision agriculture. The Secretary may only give grants to projects that are unlikely to be financed by the private sector in the absence of a grant, and the partnership must match the amount of Federal funds. Priority shall be given to research, education, or information dissemination projects that evaluate precision agricultural technologies to increase long-term efficiencies, make the findings readily available to farmers, demonstrates the efficient use of agricultural inputs, maximizes cooperation between all interested parties, and maximizes leveraging of funds and resources.

*Sec. 413. Reservation of funds for education and information dissemination projects*

Section 413 provides that, of the funds appropriated for precision agriculture research grants, the Secretary shall reserve a portion for grants for projects regarding precision agriculture related to education and information dissemination.

*Sec. 414. Precision agriculture partnerships*

Section 414 provides that the Secretary, in consultation with the Advisory Board, shall encourage the establishment of multi-State and national partnerships between land-grant institutions, State Agricultural Experiment Stations, State cooperative extension services, other colleges and universities, USDA agencies, national laboratories, agribusinesses, certified crop advisers, commodity organizations, other Federal or State government entities, non-agricul-

tural industries and nonprofit organizations, and agricultural producers and agricultural producers or other land managers.

#### *Sec. 415. Miscellaneous provisions*

Section 415 prohibits the use of grant money to be used for facility construction.

#### *Sec. 416. Authorization of appropriations*

Section 416 authorizes \$40,000,000 to be appropriated for each of the fiscal years 1998 through 2002 for this subtitle. This section also limits the amount retained by the Secretary for administrative costs to 3% of the amount appropriated.

### Subtitle C—Other Initiatives

#### *Sec. 421. High-priority research and extension initiatives*

Section 421 amends Section 1672 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5925) to allow the Secretary, in consultation with the Advisory Board, to make competitive grants for high-priority research and extension grants.

Subsection (b) provides that the Secretary shall seek proposals for grants and perform peer-review of the proposals from State agricultural experiment stations, all colleges and universities, Federal agencies, and the private sector for high priority research and extension. The grant may not be used for construction of a facility.

Subsection (c) requires grant recipients to contribute non-Federal matching funds or in-kind support. The Secretary may waive this matching funds requirement if the Secretary determines that the results of the project are likely to be applicable to agricultural commodities generally or that the project involves a minor commodity, deals with scientifically important research, and the recipient would be unable to satisfy the match requirement.

Subsection (d) permits the Secretary to give priority, after the peer-review process for all grant proposals, to proposals involving the cooperation of multiple institutions.

Subsection (e) identifies and describes the thirty-two high-priority research and extension areas for which the Secretary will make grants.

Subsection (f) authorizes the necessary funds to be appropriated for fiscal years 1998 through 2002.

Subsection (g) authorizes the Secretary to establish task forces to make recommendations in the high priority research and extension areas. The Secretary may not incur costs greater than \$1,000 in any fiscal year in connection with each task force.

#### *Paragraph (e)(9)*

The Committee recognizes that animal waste management research involves the investigation of the nutrient properties of manure that can be used in crop and pasture production systems, including composting to enhance manure characteristics. Furthermore, it is clear that efforts need to be directed toward methods to assess manure quality, processing to improve nutrient value and methods of reducing water content to improve transport characteristics. As this research continues to progress, the Committee fur-

ther encourages the integration of research concepts into demonstration trials in order to transfer this information to producers.

*Paragraph (e)(11)*

The Committee recognizes the severe losses suffered by the nation's wheat growers as a result of *Fusarium graminearum*, commonly known as wheat scab. The Committee has therefore authorized research and extension grants to better understand and combat this disease. The Committee encourages the Secretary to make the funds provided under this section available for the purposes of:

(1) Identification and understanding of the epidemiology of wheat scab and the toxicological properties of vomitoxin;

(2) Development of crop management strategies to reduce the risk of wheat scab occurrence;

(3) Development of efficient and accurate methods to monitor wheat and barley for the presence of wheat scab and resulting vomitoxin contamination, post-harvest management techniques for wheat and barley infected with wheat scab, and milling and food processing techniques to render contaminated grain safe;

(4) Strengthening and expansion of plant-breeding activities to enhance the resistance of wheat and barley to wheat scab, including the establishment of a regional advanced breeding material evaluation system; and

(5) Development and deployment of alternative fungicide application systems and formulations to control wheat scab and consideration of other technical control strategies to assist farmers until new more resistant wheat and barley varieties available.

The Committee encourages the Secretary to establish a task force, composed of producers, scientists and extension experts to facilitate prioritization of activities eligible for research and extension grants under this section regarding the plant disease *Fusarium graminearum*, commonly known as wheat scab.

*Paragraph (e)(12)*

The Committee encourages the Secretary, in consultation with the Advisory Board, to consider projects designed to evaluate the economics of applying proven research technology in peanut processing in a "real world" commercial environment. Further, the Committee encourages that projects be developed in order to scientifically compare the current marketing and handling system against a proposed modified system that incorporates the latest technology and to identify areas for increasing system efficiency through increased value and/or cost savings. The Committee believes that the objective of research conducted under this section should be to determine if implementation of the latest technology can add value beginning at the farm level, reduce cost throughout processing, improve quality and increase U.S. competitiveness.

*Paragraph (e)(16)*

Given the continued uncertainty about the effects of various farm and non-farm practices on the ecosystems of watersheds, the Committee encourages the Secretary to direct continued research efforts toward on-farm and watershed scale research wherever practicable.

Linkages along all of the ecological components within a watershed need to be more fully understood before management changes can be instituted. Furthermore, since a number of watershed scale studies are already in place around the nation, the Secretary is encouraged to use these facilities when addressing components to this problem.

*Paragraph (e)(21)*

The Committee encourages the Secretary to direct research efforts toward practices that preserve the nutrient value of manure and its use as a crop nutrient source. This would include methods to alter the storage and use of manure from different production systems but would also include the assessment of the nutrient value of manure once applied to the soil. Research should especially focus on gaining understanding of the process of odor formation, transport across landscapes, and effective techniques for odor reduction.

*Paragraph (e)(22)*

Managed wetlands represent a largely untapped resource for the sustainable production of food and fiber. Wetlands are enormously productive because they contain an ample supply of ingredients for life: soil, water, air, and sunlight. In addition they are uniquely adapted to capture and use the minerals and nutrients carried by water as it filters through the wetland.

Managed agricultural wetlands are used to produce high value crops such as rice, cranberries, crawfish, fin fish, and frogs. In many cases, multiple species can be profitably produced in the same wetland system. Wetlands hold the potential for supporting even greater diversity, which allow farmers to increase efficiency, productivity, and profitability for aquaculture producers. Research connecting managed wetlands to the nutrient and water cycles of the of the farming operation will enhance the productivity of agriculture while helping farmers.

*Paragraph (e)(32)*

The Committee encourages the Secretary, to give priority to research initiatives to increasing the productivity of non-industrial private forest lands through emphasis on spatial information technologies, growth and yield relationships for bottomland hardwoods, intensive management systems for yellow pine plantations and their impact on wildlife populations, and improved harvesting and utilization technologies for yellow pine plantations. When making grants under this section, the Committee recommends that the Secretary give preference to research proposals that are conducted as part of an existing private and public partnership or cooperative research effort and involves several interested research partners.

*Sec. 422. Organic agricultural research and extension initiative*

Section 422 authorizes the Secretary, in consultation with the Advisory Board, to make competitive specialized research and extension grants for organically grown and processed agricultural commodities. The recipient must provide matching, non-Federal funds; however, the Secretary may waive the match if the results

of the project, while of particular benefit to one commodity, are likely to be applicable to agriculture generally or the project involves a minor commodity, deals with scientifically important research, and the recipient would be unable to satisfy the matching funds requirement.

After the peer review process, the Secretary may give priority to scientifically meritorious proposals that involve the cooperation of multiple institutions.

#### *Sec. 423. United States-Mexico joint agricultural research*

Section 423 amends the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3291) by inserting a new section which authorizes the Secretary to establish an agricultural research and development program with the United States/Mexico Foundation for Science. The Foundation shall award competitive grants, with a matching funds requirement by the Mexican government, to focus on binational problems such as food safety, plant and animal pest control, and the natural resource base on which agriculture depends.

This section authorizes a research and development program conducted jointly by the United States and Mexico, utilizing the U.S.-Mexico Foundation (Foundation) for Science. The Foundation was launched in 1992, patterned after the Binational Agricultural Research and Development (BARD) program between the U.S. and Israel. The Foundation program is a partnership between the two countries, each of which puts in half of the funding, to perform research on issues of common interest to both countries. Initial funding of \$2 million from each country was obtained in 1993, with additional funding from the Hewlett Foundation for a graduate and summer scholarship program. The research funded to date focused on health, environment, and agricultural problems. The grant size has ranged from \$70,000-\$90,000 per project, with slightly more than 50% of the funding made in the U.S. Grants are awarded competitively and must involve researchers from both countries in an equal role.

The Foundation is run by a Board of Governors consisting of Science and Technology representatives from both countries, with Mexican Government officials serving on their side and the National Academy of Science and National Academy of Engineering serving on the U.S. side. The Mexican Government has pledged to match any U.S. contribution up to \$25 million over a 5 year period.

Many of the research needs identified by the partners in the Foundation are in the agriculture area, such as plant and animal pest control, food safety, and environmental protection. The Committee intends for this authorization to help to move this essential research ahead.

#### *Sec. 424. Competitive Grants for International Agricultural Science and Education Programs*

Section 424 amends the National Agricultural Research, Extension, and Teaching Policy Act of 1977 by adding a section authorizing the Secretary to award competitive grants to colleges and universities to strengthen U.S. economic competitiveness and promote international market development. Grants will be awarded to re-

search, extension, and teaching activities that enhance the international content of curricula in colleges and universities, disseminates the findings of agricultural research outside the United States to students and users of agricultural research within the United States, enhances collaborative research with other countries, and enhances the capability of U.S. colleges and institutions in assisting food production, processing, and distribution.

The Committee recognizes the need to help American agricultural producers and processors become even more competitive in international markets. The Committee understands that agricultural research, extension and teaching programs at American colleges and universities play a vital role in this effort. By coordinating research, extension and teaching programs, land-grant and other colleges and universities can continue to assist U.S. agriculture to strengthen our competitive position in world markets. However, the U.S. must gain a better understanding of specific cultural preferences, foreign distribution systems, marketing opportunities for value-added exports, and other factors. Additionally, interacting with other countries enables the U.S. to capitalize on technologies developed overseas to provide our farmers, ranchers, and processors the latest and best information available.

The Committee understands that American colleges and universities have educated countless executives and managers in other countries, but many of our own students enter the job market without an adequate understanding of global trade issues or the implications of these global issues for U.S. production and processing. The Committee therefore intends that competitive grants authorized by the section help achieve these and other important goals.

The Committee intends that the Secretary ensure that these agricultural research, extension and education programs promote and enhance the economic viability and international competitiveness of U.S. producers. Accordingly, the Secretary should work with the Administrator of the Agency for International Development to ensure a coordinated agricultural research, education, and extension agenda.

#### *Sec. 425. Food Animal Residue Avoidance Database program*

Section 425 provides that the Secretary shall continue operation of the Food Animal Residue Avoidance Database program (FARAD program). The Secretary shall provide the necessary information to the appropriate specialists, maintain up-to-date information, disseminate information to the public, furnish up-to-date data on approved drugs, maintain a comprehensive residue avoidance database, provide professional advice for determining the withdrawal times necessary for food safety in the use of drugs in food animals, and engage in other activities that promote food safety.

The Secretary, in consultation with the Advisory Board, may make 3 year grants to colleges and universities to operate the FARAD program.

#### *Sec. 426. Development and commercialization of new biobased products*

Section 426 authorizes the Secretary to enter into cooperative agreements with eligible partners, as specified, so that the facilities

and technical expertise of ARS may be made available to operate pilot plants in order to bring technologies of biobased products to the point of practical application. This section defines "biobased products" as a product suitable for food and nonfood use that is derived in whole or in part from renewable agricultural and forestry materials.

The Secretary may use funds appropriated under this section and cooperative research and development agreement funds to carry out this program.

The Secretary shall authorize the private partner to sell biobased products for the purpose of determining market potential.

*Sec. 427. Thomas Jefferson initiative for crop diversification*

Section 427 establishes the Thomas Jefferson Initiative in order to conduct research and development, in cooperation with other public and private entities, on the production and marketing of new and nontraditional crops. The Secretary shall arrange to fund and coordinate the initiative through a centrally located nonprofit center that will conduct and coordinate research and education programs in cooperation with other public and private entities.

The Secretary shall support development of multi-State regional efforts in crop diversification, and 50% of available funding shall be used for regional efforts centered at land-grant institutions. The Secretary may award the remaining funds to colleges or universities, nonprofit organizations, or public agencies in 5 year, competitive grants. Recipients must contribute matching non-Federal funds.

The Committee recognizes that the Secretary has the existing authority to reallocate funds from other programs to this initiative on a discretionary basis.

The Committee intends that the Jefferson Initiative be administered through the Cooperative States Research, Education, and Extension Service. Through the grant-making authority of that agency, the Secretary may provide allocated funds to set up a national program with regional components. The Committee further intends that the national center shall carry out research, education, and market development activities, and provide relevant information for policy decisions specific to new crop commercialization, such as data for crop insurance or grain grading standards. These grants would occur as sub-awards of primary grant awards made from the Cooperative State Research, Education, and Extension Service to the national center. Funding for regional programs should preferably go through the national center for coordination purposes, but may be awarded directly to regional programs from the agency.

Where appropriate, other institutions or organizations may provide regional leadership in cooperation with a land-grant institution.

*Sec. 428. Integrated research, education, and extension competitive grants program*

This section authorizes the Secretary to award competitive grants to colleges and universities for integrated research, education, and extension projects that address priorities of U.S. agriculture. The Secretary shall require matching funds or in-kind sup-

port if the grant will benefit a particular commodity; however, the Secretary may waive the requirement if the results are likely to benefit agriculture generally or the project involves a minor commodity, deals with scientifically important research, and the recipient would be unable to meet the match requirement.

**Sec. 429. Research grants under Equity in Education Land-Grant States Act of 1994**

Section 429 amends the Equity in Education Land-Grant States Act to authorize the Secretary to make competitive grants to 1994 Institutions to conduct agricultural research that addresses high priority concerns of tribal, national, and multi-State significance. Research will be conducted under a cooperative agreement with land-grant colleges and universities.

## TITLE V—MISCELLANEOUS PROVISIONS

**Sec. 501. Role of Secretary of Agriculture regarding food and agricultural sciences research, education, and extension**

Section 501 designates the Secretary of Agriculture as the principal official in the Executive branch responsible for coordinating all Federal research and extension activities related to food and agricultural sciences.

**Sec. 502. Office of Pest Management Policy**

Section 502 requires the Secretary to establish an Office of Pest Management Policy. This Office of Pest Management Policy shall, in addition to its assigned responsibilities within the Department of Agriculture, shall provide leadership in coordinating interagency activities with the EPA, FDA, and other Federal and State agencies and coordinate agricultural policies within the Department related to pesticides. This section requires the Office of Pest Management Policy to consult with and provide services to producer groups and interested parties.

The Committee believes that the creation of an Office of Pest management Policy is necessary to focus and coordinate the many pest management and pesticide-related activities carried out within the Department. The Committee feels strongly that this is a necessary step if the Department is to be effective in carrying out its statutory responsibilities with respect to pesticide issues and pest management research.

The Committee also expects the Office of Pest Management Policy to coordinate with the Environmental Protection Agency to ensure effective implementation of the Food Quality Protection Act of 1996. The Committee recommends the Director of the office work with EPA, producers, and other appropriate groups to develop effective, efficient mechanisms for gathering data necessary for making regulatory decisions under FQPA. The Committee expects the Director and the Administrators of the relevant Departmental agencies to work with producers in reorienting research priorities in pest management to facilitate development, evaluation and delivery of alternative pest management tools.

The Committee expects the Department to carry out the establishment of this new office as expeditiously as possible. The Com-

mittee expects the office to be created within and staffed by an official within the Office of the Secretary. The Committee intends for the Director of the office to report to the Secretary or the Deputy Secretary of Agriculture.

*Sec. 503. Food Safety Research Information Office and national conference*

Section 503 directs the Secretary to establish a Food and Safety Research Information Office at the National Agricultural Library to provide information on food safety research initiatives to the research community and the general public.

This section further directs the Secretary to sponsor a National Conference on Food Safety Research within 120 days after the enactment of this Act as well as annual workshops in each of the subsequent four years after the conference.

This section directs that the National Academy of Sciences' study include recommendations to ensure that the food safety inspection system.

*Sec. 504. Nutrient composition data*

Section 504 directs the Secretary to update nutrient composition data periodically.

The Committee encourages the Secretary to place an emphasis on human nutrition research in the areas of preventative nutrition, diet, and obesity.

*Sec. 505. Availability of funds received or collected on behalf of National Arboretum*

Section 505 provided a technical amendment to clarify that fees collected at the National Arboretum under the Act of March 4, 1927, are available for use by the Secretary without further appropriation.

*Sec. 506. Retention and use of agricultural research service patent culture collection fees*

Section 506 provides that fees collected by ARS from the Patent Culture Collection shall be retained by ARS for maintenance and operation of the Patent Culture Collection.

*Sec. 507. Reimbursement of expenses incurred under Sheep Promotion, Research, and Information Act of 1994*

The Agricultural Marketing Service may use its funds to reimburse the American Sheep Industry Association for expenses incurred by the Association in preparation for the implementation of a sheep and wool promotion, research, education, and information order.

On April 4, 1997, the Department of Agriculture announced that the October 1, 1996, sheep referendum on the Sheep and Wool Promotion, Research, Education, and Information Order (Order) had failed. Prior to this action, USDA announced on March 5, 1996, that the Order had been approved in the February 6, 1996, referendum. Following the February 6, 1996, referendum and before the Order was suspended on May 17, 1996, the American Sheep Industry Association (ASI) incurred costs approaching at least \$80,000

on behalf of the proposed National Sheep Promotion, Research, and Information Board for (1) informing producers, importers, and informing persons about collection and remittance procedures, (2) the reproduction and distribution of forms, and (3) the preparation for the first Board meeting. The Committee recognizes that these types of activities are traditionally carried out by the industry trade association which urged for the introduction of the checkoff legislation and an association's expenditures usually are reimbursed by the Board once it has checkoff funds available. However, in light of the irregularities in the first referendum which were the responsibility of the Department of Agriculture, and the resultant unanticipated costs associated with conducting the second referenda, it is the intent of the Committee that USDA reimburse ASI for expenses incurred in seeking to implement this program.

*Sec. 508. Sense of Congress regarding Agricultural Research Service emphasis on field research regarding methyl bromide alternatives*

It is the sense of Congress that the Secretary of Agriculture should use a substantial portion of the ARS funds appropriated for the development of agricultural alternatives to methyl bromide for research to be conducted in real field conditions such as pre-planting and post-harvest conditions.

The Committee is concerned that despite the allocation funds over the past several years for research to identify and evaluate pest management tools that can serve as alternatives to Methyl Bromide, the progress of this effort has been much slower than anticipated. The Committee understands the Economic Research Service is in the process of doing a study on current Methyl Bromide uses and potential alternatives. The Committee recommends that the Department also undertake an evaluation of the current methyl Bromide research projects and assess their applicability in averting negative impacts on U.S. agricultural production resulting from the phase-out of methyl Bromide. Adjustment should then be made to align research priorities and funding to the areas of greatest need. The Committee encourages the Department to make most effective use of resources to address the most imminent problem through cooperative research and evaluation efforts with producer groups.

*Sec. 509. Sense of Congress regarding importance of school-based agricultural education*

It is the sense of Congress that the Secretary of Agriculture and the Secretary of Education cooperate in providing support for school-based agricultural education.

The Committee is very proud that the highly successful U.S. agricultural industry provides Americans with the luxury of the highest quality, most abundant, and affordable supply of food, clothing and other essential goods of any country in the world. Unfortunately, many Americans have taken this luxury for granted and this has lead to a lack of understanding among our society of basic agriculture issues.

Since school-based agricultural education primarily operates at the federal level under the authority of the U.S. Department of

Education, the Committee feels that it is important that the expertise and resources of the Department of Agriculture be available to support these educational efforts. Therefore, the Committee expects the Secretary of Agriculture and the Secretary of Education to maintain a strong collaborative and cooperative relationship in providing both teaching and technical support for school-based agricultural education. The Committee feels that these efforts are important at all primary educational levels including the elementary through high school levels. Further, the Committee encourages the Secretary of Agriculture to serve as a focal point and resource for coordination of private and public efforts aimed at expanding agricultural literacy under the general public.

*Sec. 510. Sense of Congress regarding designation of department crisis management team*

Based on congressional findings, it is the sense of Congress that the Secretary should designate a Crisis Management Team, composed of senior departmental personnel in relevant areas, to develop and implement a department-wide crisis management plan and enter into cooperative agreements with other Federal agencies that have related programs.

The Committee is concerned that when incidents occur, such as natural disasters, personnel management problems, threats to public health, and trade disruptions, appropriate authorities do not act in a timely fashion to educate the media about important, relevant facts. Many of these incidents require the coordination of multiple agencies across the federal government and also with state & local authorities. Without clear, scientific, and authoritative information, those who choose to promote fear, lack of information, anxiety and pseudo-science are allowed to shape the story. Department of Agriculture employees, program participants, consumer confidence, and the food production sector have been adversely impacted as a result of these challenges.

The Committee intends that this provision will encourage the Secretary of Agriculture to put a mechanism in place with at least these characteristics:

1. It must consist of a known core of individuals with sufficient organizational standing to perform interagency coordination and present policy options directly to Cabinet level official;
2. USDA employees must be aware of the role of this Crisis Management Team and be directed to bring emerging situations to the team's attention;
3. When a problem is identified, the team should suspend all other duties until the situation is brought under control;
4. One of the primary duties of the team is the dissemination of information about what is known, what is not known, and when questions will be answered. This effort must consider the implications of the incident for all stakeholders; and
5. A credible spokesman, speaking on behalf of all the relevant agencies, should convey a focused, scientifically-sound message. The focus should be on pushing for rapid information gathering and clear communication with a minimum of jargon and maximum transmission of actual risk in terms the general public can understand.

*Other miscellaneous report language*

The Committee is aware of the Office of Energy Policy and New Uses within the Economic Research Service. The Office has been instrumental in the development of biofuels and new uses and in representing rural America on energy policy issues. The Committee expects that the Secretary will take appropriate action to ensure improved linkages between this office and the upper levels of management within the Department of Agriculture.

## COMMITTEE CONSIDERATION

### I—Hearings

The Subcommittee on Forestry, Resource Conservation, and Research held a series of hearings in the 105th Congress. However, because most research, education, and extension programs were re-authorized for only two years by the Federal Agriculture Improvement and Reform Act of 1996 (Public Law 104-127) which was enacted into law on April 4, 1996, the Committee began gathering information in the 104th Congress that was important in crafting future legislation for Federal agricultural research, education, and extension programs.

During the 104th Congress, the Committee approved hearings to be held by one of its subcommittees, the then Subcommittee on Resource Conservation, Research, and Forestry, on March 27, May 14, and July 17, 1996, to evaluate program goals, priority setting, research program administration and results; and information management and dissemination (Extension), respectively. At these three hearings, testimony was received from over 30 witnesses representing USDA and a wide variety of research, education, and extension specialists and analysts regarding the evaluation of Federal programs in agricultural research, education, and extension. This information gathered was valuable to the Committee for the purpose of determining how to use available Federal research dollars most effectively and efficiently while addressing possible future decline in Federal funding.

The first hearing of the 105th Congress occurred on June 17, 1997 to review the role of Federal, state and private research. This hearing gave insight to the profile of ongoing research efforts by engaging the three main elements of the agricultural research structure—federal, state and private—in the discussion about their current and future roles. Testimony was heard from witnesses representing the U.S. Department of Agriculture; universities; and farmer supported foundations and organizations.

The second hearing occurred on June 18, 1997 to review public and private partnership efforts in agricultural research. This hearing focused on how the federal, state and private sectors coordinate their activities. Seven witnesses representing the U.S. Department of Agriculture; universities; and farmer supported foundations and organizations testified.

The third hearing occurred on July 9, 1997 to review public, private partnerships in agricultural extension and education program. Testimony was received from witnesses representing the U.S. De-

partment of Agriculture; universities; and farmer supported foundations and organizations.

The fourth and final hearing occurred on July 22, 1997 to review authorization proposals in agricultural research, education and extension programs. This hearing focused on specific proposals for reauthorization legislation with the goal of improving efficiencies, eliminating any duplication of efforts and striving to accomplish more with the same or very possibly fewer dollars. Testimony was received from witnesses representing the U.S. Department of Agriculture; universities; and farmer-supported foundations and organizations.

## II—Subcommittee

Chairman Combest, Subcommittee on Forestry, Resource Conservation, and Research, called the meeting to order on September 25, 1997, for the purpose of marking up H.R. 2534, the Agricultural Research, Extension, and Education Reauthorization Act of 1997, a bill introduced by Messrs. Combest, Dooley, Smith of Oregon, and Stenholm to reform, extend, and repeal certain agricultural research, extension, and education programs, and for other purposes. Chairman Combest made brief opening comments and noted the extensive process of hearings and negotiations which had gone into the bill, H.R. 2534, that was before the Subcommittee. Chairman Combest stated that his intention was to improve current research and accomplish more with the same or fewer dollars.

Subcommittee Ranking Minority Member Dooley was recognized for brief opening comments and noted that the bill included provisions which would encourage greater competition for some of the research dollars at the Federal level.

Chairman Combest recognized counsel for a brief explanation of the bill and lengthy discussion occurred on section 202, Expanded Eligibility of Colleges and University for Extension Funding, and section 204, Use of Funds for Multi-State and Multi-Institutional Activities under Smith-Lever Act.

Messrs. LaHood, Cooksey, and Ms. Stabenow and others expressed concern over what they considered to be a dramatic change from only funding land-grant institutions to allowing other institutions to be able to bid competitively for extension funding. Members expressed the view that land-grant universities had the infrastructure and expertise in place to do the best agricultural research. Concern was also expressed about smaller states and smaller universities not being able to compete effectively.

Chairman Combest, Mr. Dooley, Mr. Brown and others expressed their concern about the status quo and indicated that the intent of the provision was to provide for the best extension available for a limited amount of funds. Mr. Brown noted that the land-grant universities were the foundation on which competitive agriculture had been built, but that they were not necessarily at the cutting edge of newer technologies. Chairman Combest indicated that he was aware of the views of those Members who had land-grant universities in their districts, but that the provision was to provide for the most appropriate and most qualified schools and universities to be given an opportunity to bid competitively for the extension activity grants.

Mr. Everett was then recognized to offer and explain an amendment which would strike section 204, Use of Funds for Multi-State and Multi-Institutional Activities Under Smith-Lever Act. Mr. Dooley was recognized to speak in opposition to the amendment and noted that the provision in the bill was very similar to a provision which the Administration had requested to be included in the bill and that the intent is to maximize the investment of Federal dollars and to not have redundancy in individual institutions being involved in similar research. By a voice vote, the amendment was adopted. Mr. Dooley requested a rollcall vote, and the amendment was adopted by a recorded vote of 17 yeas, 6 nays. See Rollcall Vote No. 1.

Chairman Combest requested unanimous consent to have the bill H.R. 2534 open for amendment at any point and to place before the Subcommittee the Combest En Bloc amendment to be open for amendment at any point also to accommodate the needs of Members, and there was no objection. Chairman Combest explained that the en bloc amendment included some 30 requests from individual Members and addressed them by subject matter rather than specific locations. The en bloc amendment also would reauthorize expiring provisions of the research title in current law.

Mr. LaHood was recognized to offer and explain an amendment which would provide for swine waste management and odor control research and extension. Chairman Combest and Ranking Minority Member Dooley indicated their support for the amendment and by a voice vote, the amendment was adopted. Mr. John was recognized to offer and explain an amendment which would provide for wetlands utilization research and extension. Mr. Brown spoke in support of the amendment and by a voice vote the amendment was adopted.

Mr. Lewis was then recognized to offer and explain a perfecting amendment to Sec. 412, Competitive Grants to Promote Precision Agriculture. Chairman Combest commended Mr. Lewis and Mr. Dooley for their work and cooperation in coming to agreement on the provision concerning precision agriculture and by a voice vote the amendment was adopted.

Mr. Dooley was also recognized to offer and explain a perfecting amendment to Sec. 401, Establishment and Characteristics of Partnerships, designed to enhance the competitiveness and quality of high-value agricultural products and by a voice vote, the amendment was adopted.

Mrs. Clayton was recognized to offer and explain three amendments regarding imposition of matching funds requirement for research and extension activities at 1890 land-grant colleges, including Tuskegee University. Mrs. Clayton described the first amendment which would strike Section 212, which would require matching funds of the 1890 land-grant colleges. Discussion occurred, and Chairman Combest and Ranking Minority Member Dooley complimented Mrs. Clayton on attempting to solve the matching funds issue, but both also indicated they opposed the amendment to delete the requirement for matching funds. Without objection, Mrs. Clayton withdrew the amendment to strike Section 212.

Mrs. Clayton then offered a second amendment on behalf of herself and Mr. Hilliard which would be a Sense of the Congress that

States should provide matching funds for agricultural research and extension funds provided by the Federal Government to land-grant colleges and universities eligible to receive funds. Discussion occurred on the amendment. Mrs. Clayton requested a vote on the amendment, and by voice vote, the Clayton-Hilliard amendment was not adopted.

Mrs. Clayton then offered a third amendment which would require a 50 percent match formula, phased in over a period of time, for research and extension activities at 1890 land-grant colleges and universities. It was noted that this provision was similar to a provision proposed by the Administration and by a voice vote, the amendment was adopted.

Mr. Smith of Michigan was recognized to offer and explain an amendment which would provide for evaluation and assessment of agricultural research, extension, and education programs. Mr. Smith explained that his amendment would direct the Secretary to develop a uniform assessment for evaluating the effectiveness and the contribution of research. Discussion occurred, and Mr. Smith noted that there was a provision in the Senate bill that named an independent contractor to do the assessment. Mr. Smith also indicated that CBO estimates that his amendment would cost approximately \$250,000, and the Senate provision could cost as much as \$500,000. By voice vote, the amendment was adopted.

Mr. Combest then offered and explained an amendment which would allow "in-kind contributions" to be considered in meeting the matching funds requirement for the recipient of a grant for high-priority research and extension initiatives. By voice vote, the amendment was adopted.

Mr. Brown was recognized to offer and explain an amendment to provide for a Thomas Jefferson Initiative for Crop Diversification. Mr. Brown explained that his amendment was a recommendation of the Council on Science and Technology for Agricultural Science and Technology to provide for a focused research effort that would work on diversification of agricultural commodities of various kinds on a national basis and would involve the cooperation of all the research organizations in agriculture. Discussion occurred on whether this was a mandate with the wording "shall" and "such funds as may be appropriated." Counsel noted that the amendment gave the Secretary sufficient flexibility in carrying out the provision. By voice vote, the Brown amendment was adopted.

Mr. Pombo was recognized to offer and explain an amendment which would establish a Food Safety Research Information Office and National Conference. Mr. Pombo explained that his amendment would establish this office at the National Agricultural Library in cooperation with other relevant agencies, such as Center for Disease Control, and Food and Drug Administration and the National Institutes of Health in order to provide a central repository for information on food safety and reduce the duplication of research. Mr. Brown expressed his support for the amendment and noted that the National Library of Medicine performed a similar function for health research. Discussion occurred, and the amendment was adopted by a voice vote.

Mr. Pomeroy was recognized to offer and explain an amendment which would allow the Secretary to waive the matching funds re-

quirement for high-priority and extension initiatives if the results of a project would be applicable to agricultural commodities generally or the scientifically important research involved a minor commodity and the grant recipient were unable to meet the matching funds requirement. Discussion occurred, and Mr. Pomeroy noted the waiver language was taken from Sec. 232, the Agricultural Genome Initiative.

Chairman Combest indicated that the Subcommittee in its oversight authority would carefully monitor the process and the way in which the Department implemented the waiver authority provided by the Pomeroy amendment as it was subjective and it could be difficult to justify for some projects and not for others. Discussion occurred, and the Pomeroy amendment was adopted by a voice vote.

Chairman Combest stated that a subject which would be debated as the research bill moved through the Committee legislative process would be formula funding, and that he wished to discuss the matter while Departmental representatives were present. Mr. Dooley was recognized to offer and explain an amendment with background information on the use of current rural population and farm population census data for allotments of formula funds under the Hatch Act and Smith-Lever Act.

Mr. Dooley noted that the issue of formula funding and making any changes was a most controversial matter and explained that his amendment did not change the formula, but it would use the most current census data, 1990, to allocate the funds. At present, the formula is based on census figures from 1955 and Mr. Dooley noted that the controversy emerges because there will be winners and losers in the way the dollars are allocated under the current census data. Mr. Dooley expressed his view that it was important for the Committee to begin the dialogue on what would be the most equitable and responsible allocation of Federal research dollars.

Mr. Pickering commended Mr. Dooley and expressed his interest in working with him to find a solution to the formula funding matter. Mr. Pickering suggested that the percentage of the farm sector in each State's economy should be considered in the formula also, and he noted that the South would receive reduced funding under the Dooley amendment.

Discussion occurred, and Departmental representatives indicated they would work with the Committee as it explored different approaches to resolving formula funding. Mr. Combest indicated that the matter might best be taken up in a free standing bill as the Senate had not included formula changes in its bill. Mr. Moran expressed his concern that some States in which agriculture is an important segment of their economy may also be experiencing population declines and would suffer the most by reductions in research funding.

Mr. Dooley requested unanimous consent to withdraw his amendment and without objection his amendment was withdrawn.

Mr. Farr was then recognized to offer and explain an amendment which would add to the list of high-priority research and extension areas a provision to allow for wild papas grass control and eradication research and extension. By voice vote, the Farr amendment was adopted.

Mr. Schaffer was recognized to offer and explain an amendment which would designate a red meat safety research center. Discussion occurred, and Mr. Schaffer indicated that the red meat safety research center had been authorized previously and that there was a great need for research on matters such as *E.Coli*. It was noted that no appropriations had been provided for the center. There was also discussion on the designation of a specific facility or center rather than on specific research, and that the research is included in the Combest En Bloc Amendment. Departmental representatives indicated the priority and money which the Department was presently spending on the microbiology of food safety.

Chairman Combest suggested that Mr. Schaffer withdraw his amendment and work with staff and the Department to find out more about the matter before the full Committee considers the research bill. Without objection, Mr. Schaffer withdrew his amendment.

Ms. Stabenow was then recognized to offer and explain an amendment which would strike Section 202, Expanded Eligibility of Colleges and Universities for Extension Funding. Ms. Stabenow reiterated her concern that the present provision would allow up to 15 percent of the funding to go to places other than land grant universities. Chairman Combest and Ranking Minority Member Dooley again expressed their opposition to the amendment and that the intent to Section 202 was in no way to discredit land-grant universities but to try and expand the most efficient and effective way to spend limited extension dollars. Mr. Baldacci stated his concern that the smaller, more rural States would not benefit in the area of competitive grants, and that there were many other provisions in the bill which allowed for matching funds, competitive grants, and allowed for multi-State and other research.

Lengthy discussion and debate occurred on the amendment. A clarification was made that no matching funds were required on Sec. 3(d) Smith-Lever funds for coordinating extension activities. By voice vote, the Stabenow amendment was adopted.

Mr. Everett asked for clarification of discretionary language in Section 205, Transfer of Smith-Lever Act and Hatch Act of 1887 funds between research and extension activities. Staff indicated that total authority was given to the institution as to whether it used the provision or how it used the provision.

Mr. Smith of Michigan was then recognized to offer and explain an amendment to allow research and extension grants for pathogen detection and limitation. Mr. Smith noted that 300 people from his district had come down with Hepatitis A and by a voice vote, the amendment was adopted.

Mr. Berry questioned Departmental officials concerning an unsuccessful research proposal for grants under the Fund for Rural America. Departmental officials stated they would look into the matter and get the information back to Mr. Berry.

Mr. Chambliss noted for the record his interest in continuing research into forestry and timber resources to ensure that the U.S. forestry industry remain internationally competitive. It was noted that the forestry research provision would be considered when the bill is before the full Committee.

Mr. Cooksey was then recognized to offer and explain an amendment which would allow any agricultural commodity, not just dairy, for risk management research and extension. By voice vote, the amendment was adopted.

Mr. Cooksey was again recognized to offer and explain an amendment which would mandate not less than 15 percent of high-priority research and extension initiatives be awarded to smaller institutions. Discussion occurred on the amendment and Chairman Combest and Ranking Minority Member Dooley expressed serious concerns about the amendment and what it would mean for other competitive research and the issue of earmarking certain funds. Departmental representatives indicated that in other research initiatives that certain amounts were set aside for smaller institutions.

Chairman Combest requested that Mr. Cooksey withdraw his amendment and attempt to find answers to questions which were raised during the debate on the amendment. Without objection, Mr. Cooksey withdrew his amendment.

By a voice vote, the Combest En Bloc amendment, as amended, was adopted and Mr. Dooley moved that the bill, H.R. 2534, as amended, be reported to the full Committee with the recommendation that it do pass. By voice vote, H.R. 2534, as amended, was ordered reported to full Committee in the presence of a quorum.

Chairman Combest reminded Members that he and staff would work with them in preparation for consideration of the bill before the full Committee. Without objection, staff was given the usual instruction to make technical, clarifying, and conforming changes as appropriate without changing the substance of the legislation and Chairman Combest adjourned the meeting subject to the call of the Chair.

### III—Full Committee

The Committee on Agriculture met, pursuant to notice, with a quorum present, on October 23, 1997, to consider H.R. 2534, the Agricultural Research, Extension and Education Act of 1997.

Chairman Smith made a brief opening statement and thanked Chairman Combest, of the Subcommittee on Forestry, Resource Conservation, and Research, for all the work that had gone into the bill as reported by the Subcommittee.

Chairman Smith suggested that the Committee order the bill reported but to hold the bill until the Senate completed action. At that time, the Members of the Committee would meet to determine what action should be taken regarding any additional funding, if any to be provided in the bill, in which case, the bill could be taken promptly to the Floor and to conference with the Senate.

Ranking Minority Member Stenholm was recognized for an opening statement and stated that he was disappointed that provisions regarding competitive funding and the ability to leverage Federal funds had been removed in Subcommittee. Mr. Stenholm also raised the issue of additional funding for the bill and his previous proposal to take savings from administrative costs in the food stamp program to provide additional funding for research, the fund for Rural America, nutrition, and crop insurance. Mr. Stenholm indicated that he would not offer a similar amendment to the bill at

this time as he was aware the Chairman was planning to bring the bill up under Suspension of the Rules.

Chairman Smith offered an Amendment in the Nature of a Substitute to H.R. 2534, as amended by the Subcommittee, and noted that the Amendment would be open for amendment at any point.

Counsel was then recognized for an explanation of the Amendment in the Nature of a Substitute.

Mr. Minge was recognized to offer and explain an amendment which would exclude from consideration for an award of research and extension financial institutions that receive research and extension funds through a process other than a competitive, merit-based award process. Mr. Minge explained that his amendment was to discourage earmarking in appropriation bills and conference reports in order to circumvent a competitive award principle.

Discussion occurred on the amendment, with some Members expressing concern that the amendment may be too broad in addressing the problem. Mr. Dooley stated that the amendment reinforced what the Subcommittee had tried to do to ensure that an institution receiving Federal research dollars to through a prescribed competitive process and have a merit review of the project, and that he supported the amendment.

Chairman Smith requested Mr. Minge to withdraw his amendment as the Committee wanted to take the bill to Floor for prompt action and with the least controversy possible. Both Chairman Smith and Subcommittee Chairman Combest indicated that the thrust of his amendment was valid and one that needed to be raised and discussed in the future.

Mr. Stenholm also encouraged Mr. Minge to withdraw his amendment and stated that if authorizing legislation were passed that some of the problems regarding earmarking of funds may be avoided.

Without objection, Mr. Minge withdrew his amendment.

Mrs. Clayton was recognized and expressed her appreciation to the Chairman, Subcommittee Chairman and Subcommittee Ranking Minority Member Dooley for the changes to Section 212, the matching funds requirement for research and extension activities at 1890 land-grant colleges, including Tuskegee University.

Mr. Stenholm stated that the honey industry was working on amendments to the Honey Research Promotion and Consumer Act, but that it was his understanding that the industry had not been able to reach a consensus at this time. Mr. Stenholm indicated his desire to pursue this issue further if the industry could reach consensus and noted that a provision on the issue was in the Senate research bill.

Mr. Minge questioned what actually would be considered a minor commodity under the provision for waiver authority for matching funds on organically grown minor commodities. Discussion occurred, and Mr. Minge urged the Department to be flexible in implementing this provision.

Chairman Smith called for a vote on the Amendment in the Nature of a Substitute to H.R. 2534 and by a voice vote the Substitute was adopted.

Mr. Combest was then recognized and moved that H.R. 2534, as amended be adopted and favorably reported to the House with the

recommendation that it pass. Mr. Combest's motion was agreed to by a voice vote of the Committee.

Mr. Combest also moved, pursuant to clause 1, rule XX, that the Committee authorize the Chairman to offer such motions as may be necessary in the House to go to conference with the Senate on the bill H.R. 2534 or any similar Senate bill.

Chairman Smith noted there would be adequate time before the Committee report would be filed to give Members two working days to file minority, supplemental, or other views. Without objection, staff was given permission to make any necessary technical, clarifying or conforming changes as were appropriate without changing the substance of the legislation.

The meeting was adjourned, subject to the call of the Chair.

#### REPORTING THE BILL—ROLLCALL VOTES

In compliance with clause 2(l)(2)(b) of rule XI of the House of Representatives, the Committee sets forth the record of the following rollcall votes taken with respect to H.R. 2534.

##### ROLLCALL NO. 1

**Summary:** To strike section 204, Use of Funds for Multi-State and Multi-Institutional Activities Under Smith-Lever Act.

**Offered By:** Mr. Everett.

**Results:** The amendment was adopted with 17 yeas/6 nays/10 not voting.

**Yea.**—Representatives Pombo, Smith of Michigan, Everett, Lucas, Lewis, LaHood, Pickering, Schaffer, Jenkins, Cooksey, Stabenow, Peterson, Clayton, Hilliard, Pomeroy, Baldacci, and Goode.

**Nay.**—Representatives Combest, Barrett, Dooley, Brown, Farr, and Berry.

**Not voting.**—Representatives Doolittle, Chenoweth, Hostettler, Chambliss, Emerson, Moran, John, Minge, Holden, and Baesler.

#### BUDGET ACT COMPLIANCE (SECTIONS 308, 403, AND 424)

The provisions of clause 2(l)(3)(B) of rule XI of the Rules of the House of Representatives and section 308(a)(1) of the Congressional Budget Act of 1974 (relating to estimates of new budget authority, new spending authority, new credit authority, or increased or decreased revenues or tax expenditures) are not considered applicable. The estimate and comparison required to be prepared by the Director of the Congressional Budget Office under clause 2(l)(3)(C) of Rule XI of the Rules of the House of Representatives and sections 403 and 424 of the Congressional Budget Act of 1974 submitted to the Committee prior to the filing of this report are as follows:

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, November 4, 1997.*

Hon. ROBERT F. SMITH,  
*Chairman, Committee on Agriculture,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2534, the Agricultural Research, Extension, and Education Reauthorization Act of 1997.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contacts for federal costs are Jim Langley and Dave Hull. The CBO staff contact for the state and local impact is Marjorie Miller.

Sincerely,

JAMES L. BLUM  
(For June E. O'Neill).

Enclosures.

#### CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

*H.R. 2534.—Agricultural Research, Extension, and Education Re-  
authorization Act of 1997*

#### SUMMARY

This legislation would reauthorize, reform, or eliminate certain agricultural research, extension, and education programs, and would authorize appropriations for several new research programs over fiscal years 1998 through 2002. Assuming appropriation of the authorized or estimated amounts, implementing the bill would require about \$14.7 billion in discretionary spending authority over the 1998–2002 period. Of that total, appropriations totaling \$1.7 billion for 1998 have recently been cleared by the Congress (in H.R. 2160, the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Act, 1998).

The bill also would require the Secretary of Agriculture to spend funds currently being held in special Treasury accounts for authorized research and education activities at the National Arboretum and the Agricultural Research Service Patent Culture Collection. Because the bill would affect direct spending, pay-as-you-go procedures would apply. However, CBO estimates that the increase in direct spending would be only about \$115,000 per year.

H.R. 2534 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act of 1995 (UMRA). A large part of the funds authorized by this bill would be spent on grants to state and tribal institutions, mostly colleges and universities. The bill would give grantees some new flexibility but it also would establish new grant conditions. It would impose no other costs on state, local or tribal governments.

#### DESCRIPTION OF THE BILL'S MAJOR PROVISIONS

The bill consists of five titles. Title I would establish priorities and coordination, planning, and review procedures for agricultural research, extension, and education activities conducted by and for the Department of Agriculture.

Title II would reform existing research, extension, and education authorities. The bill would establish consistent requirements for matching funds across relevant legislative authorities. Those requirements would be phased in for "1890 institutions" and Tuskegee University (the historically black colleges and universities) beginning in fiscal year 2000, but would not be required for "1994 institutions" (the historically Indian colleges).

Title III would extend most of the authorizations for appropriations for agricultural research, extension, and education programs through fiscal year 2002, and repeal certain agricultural research programs.

Title IV would establish or reauthorize several research, extension, and education initiatives, including:

- partnerships for research on agricultural products with high value (such as processed products and specialty crops);

- precision agriculture (defined as integrated information- and production-based farming systems designed to increase productivity and profitability while minimizing unintended effects on wildlife and the environment);

- organic agriculture;

- joint agricultural research between the United States and Mexico;

- continuation of the food animal residue avoidance database program (FARAD);

- development and commercialization of new biobased industrial products;

- the Thomas Jefferson initiative for crop diversification; and

- 31 other high-priority research and extension initiatives.

Title V contains miscellaneous provisions. This title would:

- declare the Secretary of Agriculture to be the principal executive branch official to coordinate food and agricultural sciences research, education, and extension;

- establish two new offices in the Department of Agriculture (the Office of Pest Management Policy and the Food Safety Research Information Office);

- require the Secretary to update nutrient composition data periodically; and

- make funds received or collected by the National Arboretum and the Agricultural Research Service Patent Culture Collection available to the respective entities.

**Estimated cost to the Federal Government:** For the purposes of this estimate, CBO assumes that all amounts authorized or estimated to be authorized will be appropriated for each fiscal year. Amounts totaling \$1.7 billion have recently been appropriated for 1998 for many of the authorized programs. CBO estimates that additional appropriations, totaling almost \$13.1 billion over the 1998-2000 period, would be required to implement H.R. 2534. The estimated budgetary impact of the bill is shown in Table 1. Most of the costs of this legislation fall within budget function 350 (agriculture).

### Basis of estimate

#### Spending subject to appropriation

The bill would reauthorize appropriations for agricultural research, extension, and education activities—most of the previous authorizations expired at the end of fiscal year 1997—and would authorize appropriations for several new activities over fiscal years 1998 through 2002. In addition to the amounts already provided for 1998, and assuming appropriation of the specified or estimated amounts for all programs, implementing the bill would result in about \$13.1 billion in additional discretionary spending authority and \$10.7 billion in additional discretionary outlays over the 1998–2002 period.

TABLE 1. ESTIMATED IMPACT ON FEDERAL SPENDING

	By Fiscal Year, in Millions of Dollars					
	1997	1998	1999	2000	2001	2002
<b>Spending Subject to Appropriation:</b>						
Spending Under Current Law:						
Budget Authority .....	1,698	1,680	0	0	0	0
Estimated Outlays .....	1,656	1,706	642	186	31	0
Proposed Changes:						
Estimated Authorization Level .....	0	1,266	2,945	2,945	2,950	2,950
Estimated Outlays .....	0	513	1,900	2,539	2,815	2,950
Spending Under H.R. 2534 <sup>1</sup> :						
Estimated Authorization Level .....	1,698	2,946	2,945	2,945	2,950	2,950
Estimated Outlays .....	1,656	2,219	2,542	2,725	2,846	2,950
Changes in Direct Spending:						
Estimated Budget Authority .....	0	(2)	(2)	(2)	(2)	(2)
Estimated Outlays .....	0	(2)	(2)	(2)	(2)	(2)

<sup>1</sup> The 1997 and 1998 levels are the amounts appropriated for those years. They include spending for the Agricultural Research Service, the Cooperative State Research Education and Extension Service, and associated buildings and facilities accounts.

<sup>2</sup> Less than \$500,000 a year.

**Programs with Specific Authorized Appropriations.**—The bill would authorize the appropriation of specific amounts for each fiscal year from 1998 through 2002 for a number of programs and research areas. Table 2 shows the specified amounts. The bill contains specific authorizations totaling \$2.5 billion a year, for a five-year total of \$12.4 billion. (About \$1.4 billion of those amounts has already been appropriated for 1998.)

**Estimated Authorizations.**—The bill also would either authorize the appropriation, or would imply an authorization, of such sums as necessary to carry out certain programs. We estimate that implementing these programs would require funding of about \$2.3 billion over the 1998–2002 period. CBO's basis for estimating that sum is provided below. Except where noted, CBO's estimate is based on information obtained from the U.S. Department of Agriculture (USDA) or the appropriation for fiscal year 1998. CBO's estimate of the total cost of each program over fiscal years 1998–2002 appears in brackets after each description.

TABLE 2. SPECIFIED ANNUAL AUTHORIZATIONS OF APPROPRIATIONS FOR 1998 THROUGH 2002

	Authorized annual amount (in millions of dollars)
National Agricultural Weather Information System .....	15
Assistive technology for farmers with disabilities .....	6

TABLE 2. SPECIFIED ANNUAL AUTHORIZATIONS OF APPROPRIATIONS FOR 1998 THROUGH 2002—  
Continued

	Authorized annual amount (in millions of dollars)
Grants and fellowships for food and agricultural education .....	60
Grants for production and marketing of alcohol fuels and industrial hydrocarbons .....	20
Expanded food and nutrition education .....	83
Grants to upgrade agricultural research facilities at 1890 schools, including Tuskegee University .....	15
National research and training centennial centers .....	2
Education grants for Hispanic-serving institutions .....	20
Existing and certain new agricultural research programs .....	850
Agricultural experiment stations .....	310
Extension education .....	460
Aquaculture assistance program .....	8
National Rural Information Clearing House .....	1
Competitive, Special, and Facilities Research Grant Act .....	500
1994 schools <sup>1</sup> .....	5
National Aquaculture Act of 1980 .....	3
Agricultural telecommunications program .....	12
Pilot research program to combine medical and agricultural research .....	10
Animal health and disease research .....	25
Research on national and regional problems .....	35
Rangeland Research .....	10
Precision agriculture .....	40

<sup>1</sup>For 2001 and 2002 only.

**Partnerships for High-Value Agricultural Product Quality Research.**—The bill would authorize the Secretary of Agriculture to make competitive grants to establish partnerships to coordinate and manage research to enhance the quality of high-value agricultural products. Research would focus on such areas as effective and environmentally responsible pest management alternatives, genetic research, refinement of field production practices, processing and packaging technology, and diversification of value-added enterprises in rural areas. The bill would authorize such sums as necessary for the 1998–2002 period. [\$45 million over fiscal years 1998 through 2002.]

**National Agricultural Genome Initiative.**—Section 1671 of the Food, Agriculture, Conservation, and Trade Act of 1990 directs the Secretary of Agriculture to conduct a research program through competitive grants to support basic and applied research and technology development in the area of plant genome structure and function. The 1990 act authorized the appropriation of such sums as necessary for fiscal years 1996 and 1997. This bill would amend the 1990 act to require the Secretary to carry out a National Agricultural Genome Initiative to study and map agriculturally significant genes to achieve sustainable and secure agricultural production and for other purposes. It would authorize the Secretary to enter into or make contracts, grants, or cooperative agreements. One-to-one matching funds or in-kind support would be required for any grant that benefits a specific commodity. [\$150 million in fiscal years 1998 through 2002.]

**Organic Agricultural Research and Extension Initiative.**—Section 422 of the bill would authorize the Secretary, in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board, to make competitive specialized research and extension grants for organic activities. The recipient would have to provide matching, nonfederal funds, unless the match were

to be waived by the Secretary because of the broad applicability of the potential results or for certain other reasons. [\$6 million over the 1998-2002 period.]

**United States-Mexico Joint Agricultural Research.**—The bill would establish a new authorization for the Secretary to establish an agricultural research and development program with the United States/Mexico Foundation for Science. The foundation would award competitive grants, with a matching funds requirement, to focus on binational problems facing agricultural producers and consumers. [\$5 million over the 1998-2002 period.]

**Competitive Grants for International Agricultural Science and Education Programs.**—The bill would authorize the Secretary to award competitive grants to colleges and universities to strengthen U.S. economic competitiveness and promote international market development. Grants would be awarded for research, extension, and teaching activities that enhance the international content of curricula or other activities that would assist in the dissemination of research conducted outside of the United States. [\$10 million over the 1998-2002 period.]

**Food Animal Residue Avoidance Database (FARAD) Program.**—Section 425 of the bill would require the Secretary to continue operation of the FARAD program, which is designed to maintain up-to-date information on such items as approved drugs for animals, disseminate such information to the public, and engage in other activities that would promote food safety. [\$3 million over the 1998-2002 period.]

**Thomas Jefferson Initiative for Crop Diversification.**—The bill would establish an initiative for the purpose of conducting research and development on the production and marketing of new and non-traditional crops. The Secretary would be required to arrange to fund and coordinate the initiative through a centrally located non-profit center. One-half of the available funding would be used for regional efforts centered at land-grant institutions, with the remaining funds awarded to colleges, universities, nonprofit organizations, or public agencies in five-year competitive grants. Recipients would have to contribute matching nonfederal funds. [\$8 million over the 1998-2002 period.]

**Integrated Research, Education, and Extension Competitive Grants Program.**—The bill would authorize the Secretary to award competitive grants to colleges and universities for integrated research, education, and extension projects that would address priorities of U.S. agriculture. The bill would require that recipients provide matching funds unless the likely results of the grants would have general benefits to agriculture or certain other conditions are met. [\$20 million over the 1998-2002 period.]

**Research Grants under Equity in Education Land-Grant States Act of 1994.**—The bill would authorize the Secretary to make competitive grants to 1994 institutions to conduct agricultural research that addresses high-priority concerns of tribal, national, and multistate significance. Research would be conducted under cooperative agreements with land-grant colleges and universities. [\$10 million over the 1998-2002 period.]

**Office of Pest Management Policy.**—The bill would require the Secretary to establish a new office that would be responsible for de-

veloping and coordinating USDA policy on pest management and pesticides and in assisting the department in fulfilling its responsibilities related to pest management under applicable laws. CBO's estimate is based on information from USDA regarding expenditures for other similar offices and the cost of current related activities. [\$8 million over the 1998–2002 period.]

**Food Safety Research Information Office and National Conference.**—The bill would require the Secretary to establish a Food Safety Research Information Office at the National Agricultural Library. This new office would provide information to the research community and the general public on publicly funded food safety research initiatives. The bill would also require the Secretary to sponsor, within 120 days of enactment, a national conference on food safety research for the purpose of beginning the task of establishing priorities for research on food safety. Additional workshops would be required in each subsequent year to update and adjust priorities. CBO's estimate is based on information from USDA regarding expenditures for other similar offices, conferences, and workshops. [\$4 million over the 1998–2002 period.]

**Nutrient Composition Data.**—The bill would require the Secretary to update, on a periodic basis, nutrient composition data, and to report to the Congress within 180 days on the methodology, quality assurance criteria, and timing for making the updates. [\$10 million over the 1998–2002 period.]

**Other Programs.**—The bill would continue several existing programs and authorize such sums as necessary for the 1998–2002 period. For the purposes of this estimate, CBO assumes that the necessary appropriations for policy research centers, health promotion research, the national genetic research program, activities under the Critical Agricultural Materials Act, water quality research, and the planning, construction, acquisition, and repair of buildings would be equivalent to the 1998 appropriation for these programs and activities. [Estimated funding totals \$1.2 billion for the 1998–2002 period.]

**High-Priority Research and Extension Initiatives.**—The bill would authorize such sums as necessary for fiscal years 1998 through 2002 for 31 designated high-priority research and extension initiatives. Based on information from USDA and taking into account appropriated amounts for some of the initiatives for fiscal year 1998, CBO estimates that the total cost of these 31 initiatives would be about \$860 million over the 1998–2002 period. Table 3 lists the initiatives and the estimated annual funding level for each initiative.

TABLE 3. ESTIMATED ANNUAL AUTHORIZATIONS FOR 1998 THROUGH 2002 FOR HIGH-PRIORITY RESEARCH AND EXTENSION ACTIVITIES

	Authorized annual amount (in millions of dollars)
Brown citrus aphid and citrus tristeza virus research and extension .....	3
Ethanol research .....	20
Aflatoxin research .....	(1)
Mesquite research and extension .....	(1)
Prickly pear research and extension .....	(1)
Deer tick ecology research and extension .....	(1)
Red meat safety research and extension .....	3

TABLE 3. ESTIMATED ANNUAL AUTHORIZATIONS FOR 1998 THROUGH 2002 FOR HIGH-PRIORITY RESEARCH AND EXTENSION ACTIVITIES—Continued

	Authorized annual amount (In millions of dollars)
Grain sorghum ergot research and extension .....	(1)
Animal waste and odor management research and extension .....	5
Fire ant research and extension .....	6
Wheat scab research and extension .....	(1)
Peanut market enhancement research and extension .....	(1)
Dairy financial risk management research and extension .....	(1)
Cotton research and extension .....	(1)
Methyl bromide research and extension .....	15
Water quality and aquatic ecosystems research and extension .....	2
Potato research and extension .....	1
Wood utilization research and extension .....	4
Low-bush blueberry research and extension .....	(1)
Formosan termite eradication research and extension .....	10
Swine waste management and odor control research and extension .....	(1)
Wetlands utilization research and extension .....	5
Wild pampas grass control and eradication research and extension .....	(1)
Pathogen detection and limitation research and extension .....	55
Financial risk management research and extension .....	(1)
Ornamental tropical fish research and extension .....	(1)
Sheep scrapie research and extension .....	2
Animal waste management at rural/urban interface .....	(1)
Gypsy moth research and extension .....	4
Dairy efficiency, profitability, and competitiveness research and extension .....	28
Animal feed research and extension .....	2

<sup>1</sup> Less than \$500,000.

**Direct Spending.**—The bill also would require the Secretary of Agriculture to spend funds currently being held by the Treasury for authorized research and education activities at the National Arboretum and the Agricultural Research Service Patent Culture Collection.

**National Arboretum.**—The Federal Agriculture Improvement and Reform Act of 1996 (Public Law 104-127) gave the National Arboretum authority to negotiate agreements granting concessions at the arboretum to nonprofit scientific or educational organizations, except that the net proceeds from the concessions would be used exclusively for research and education work for the benefit of the National Arboretum. Any funds received or collected by the arboretum as a result of such activities were to be retained in a special fund in the Treasury for the use and benefit of the National Arboretum as the Secretary considered appropriate. The Agricultural Research Service (ARS) estimates that the funds currently held by Treasury total about \$11,000. The Office of Management and Budget determined that the Department of Agriculture could not spend these funds under current law. The bill would require the Secretary of Agriculture to spend these funds for authorized activities at the arboretum. Requiring the expenditure of funds that currently are not being spent would increase direct spending. CBO estimates that this provision would cost less than \$15,000 per year.

**Patent Culture Collection.**—The Agricultural Research Service maintains the Patent Culture Collection at its facility in Peoria, Illinois. ARS collects fees in connection with the acceptance of microorganisms for deposit in, or the distribution of microorganisms from, the Patent Culture Collection. These fees, which ARS estimates average \$50,000 to \$70,000 per year, go directly to the

Treasury. ARS does not currently have authority to spend the amount collected. This provision would give ARS authority to use such fees to carry out its responsibilities under law (including international treaties) with respect to the Patent Culture Collection. Granting authority to spend fees which currently go to the Treasury would increase direct spending by less than \$100,000 per year.

**Pay-as-you-go considerations.**—The Balanced Budget and Emergency Deficit Control Act of 1985 specifies pay-as-you-go procedures for legislation affecting direct spending or receipts. While H.R. 2534 would affect direct spending, the amounts involved would be insignificant. The bill would not affect governmental receipts.

**Estimated Impact on State, Local, and Tribal Governments.**—H.R. 2534 contains no intergovernmental mandates as defined in UMRA. A large part of the funds authorized by this bill would be spent on grants to state and tribal institutions, mostly colleges and universities.

The bill would impose some new conditions on grants. Some of these new conditions involve procedures intended to ensure that agricultural research and extension funds are used for high-priority activities. For example, H.R. 2534 would require that state research and extension plans identify specific agricultural issues to be addressed by these programs. Further, the bill would require that institutions receiving agricultural research or extension funds establish a process for merit review of funded activities. Based on information provided by state officials. CBO estimates that these requirements would not impose significant new costs on grant recipients. These institutions generally follow procedures that would comply with these provisions. They could face additional burdens if the specific requirements imposed by USDA's implementing regulations were to differ significantly from current practice.

Other provisions in the bill would impose additional matching requirements on grant recipients. Specifically, H.R. 2534 would broaden existing requirements that states provide nonfederal funds at least equal to the amount of federal funds received for the basic extension and research formula grant programs. (Most of these programs are already covered by the existing requirement.) Further, it would impose a new matching requirement on formula funds received by 1890 institutions. To the extent that these institutions do not already do so, they would be required to provide increasing levels of matching funds reaching 50 percent of federal funds in fiscal years 2002 and beyond.

**Estimated Impact on the Private Sector.**—This bill would impose no new private-sector mandates as defined in UMRA.

**Previous CBO Estimates.**—On September 4, 1997, CBO prepared an estimate of the Agricultural Research, Extension, and Education Reform Act of 1997, as ordered reported by the Senate Committee on Agriculture, Nutrition, and Forestry. That bill—later designated as S. 1150—would authorize appropriations of about \$14 billion for similar purposes, and would also provide direct spending of about \$1 billion for agricultural research through the Fund for Rural America and the proposed Initiative for the Future of Agriculture and Food Systems. However, savings in administrative costs for the Food Stamp program would offset the direct spending in S. 1150.

The primary difference between the two bills is that H.R. 2534 would neither provide direct spending authority for the Fund for Rural America nor create a new initiative for mandatory research spending. Instead, H.R. 2534 contains only two minor direct spending effects. The two bills would both authorize appropriations of close to \$3 billion a year. While the specific projects differ, both bills would reauthorize most current research, extension, and education initiatives, and authorize several new ones.

Estimate prepared by.—Federal Costs: Jim Langley and Dave Hull. Impact on State, Local, and Tribal Governments: Marjorie Miller.

Estimate approved by.—Robert A. Sunshine, Deputy Assistant Director for Budget Analysis.

#### **CONSTITUTIONAL AUTHORITY STATEMENT**

Pursuant to clause 2(l)(4) of rule XI of the Rules of the House of Representatives, the Committee finds the Constitutional authority for this legislation in Article I, clause 8, section 18, that grants Congress the power to make all laws necessary and proper for carrying out the powers vested by Congress in the Government of the United States or in any department or officer thereof.

#### **OVERSIGHT STATEMENT**

No summary of oversight findings and recommendations made by the Committee on Government Reform and Oversight as provided for in clause 2(l)(3)(D) of rule XI, and under clause 42(c)(2) of rule X of the Rules of the House of Representatives was available to the Committee with reference to the subject matter specifically addressed by H.R. 2534.

#### **COMMITTEE OVERSIGHT FINDINGS**

Pursuant to clause 2(l)(3)(A) of rule XI, and clause 2(b)(1) of rule X of the Rules of the House of Representatives, the Committee on Agriculture's oversight findings and recommendations are reflected in the body of this report.

#### **COMMITTEE COST ESTIMATE**

Pursuant to clause 7(a) of rule XIII of the Rules of the House of Representatives, the Committee report incorporates the cost estimate prepared by the Director of the Congressional Budget Office pursuant to sections 403 and 424 of the Congressional Budget Act of 1974.

#### **ADVISORY COMMITTEE STATEMENT**

No advisory committee within the meaning of section 5(b) of the Federal Advisory Committee Act was created by this legislation.

#### **APPLICABILITY TO THE LEGISLATIVE BRANCH**

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104-1).

## FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act (Public Law 104-4).

### CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

### **NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT OF 1977**

#### **TITLE XIV—NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT OF 1977**

##### **SHORT TITLE**

**SEC. 1401.** This title may be cited as the "National Agricultural Research, Extension, and Teaching Policy Act of 1977".

##### **Subtitle A—Findings, Purposes, and Definitions**

##### **SEC. 1402. PURPOSES, PRIORITIES, AND MANAGEMENT PRINCIPLES OF AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION.**

(a) **PURPOSES.**—The purposes of federally supported agricultural research, extension, and education are to—

(1) \* \* \*

\* \* \* \* \*

(b) **PRIORITY SETTING PROCESS.**—Consistent with subsection (a), the Secretary shall establish priorities for agricultural research, extension, and education activities conducted or funded by the Department. In establishing such priorities, the Secretary shall solicit and consider input and recommendations from the Advisory Board and persons who conduct or use agricultural research, extension, or education.

(c) **MANAGEMENT PRINCIPLES.**—To the maximum extent practicable, the Secretary shall ensure that agricultural research, education, and extension activities conducted or funded by the Department are accomplished in a manner that—

(1) integrates agricultural research, education, and extension functions to better link research to technology transfer and information dissemination activities;

(2) encourages multi-State and multi-institutional programs to address relevant issues of common concern and to better leverage scarce resources; and

(3) achieves agricultural research, education, and extension objectives through multi-institutional and multifunctional ap-

*proaches and by conducting research at facilities and institutions best equipped to achieve those objectives.*

\* \* \* \* \*

### [DEFINITIONS]

#### [SEC. 1404. When used in this title—]

#### **SEC. 1404. PRINCIPAL DEFINITIONS REGARDING AGRICULTURAL RESEARCH, EDUCATION, AND EXTENSION.**

*When used in this title or any other law relating to any research, extension, or education activities of the Department of Agriculture regarding the food and agricultural sciences (unless the context requires otherwise):*

(1) [the] *The term "Advisory Board" means the National Agricultural Research, Extension, Education, and Economics Advisory Board[;].*

(2) [the] *The term "agricultural research" means research in the food and agricultural sciences[;].*

(3) [the] *The term "aquaculture" means the propagation and rearing of aquacultural species, including, but not limited to, any species of finfish, mollusk, or crustacean (or other aquatic invertebrate), amphibian, reptile, ornamental fish, or aquatic plant, in controlled or selected environments[;].*

(4) [the] *The terms "college" and "university" mean an educational institution in any State which (A) admits as regular students only persons having a certificate of graduation from a school providing secondary education, or the recognized equivalent of such a certificate, (B) is legally authorized within such State to provide a program of education beyond secondary education, (C) provides an educational program for which a bachelor's degree or any other higher degree is awarded, (D) is a public or other nonprofit institution, and (E) is accredited by a nationally recognized accrediting agency or association[;].*

(5) [the] *The term "cooperative extension services" means the organizations established at the land-grant colleges and universities under the Smith-Lever Act of May 8, 1914 (38 Stat. 372-374, as amended; 7 U.S.C. 341-349), and section 209(b) of the Act of October 26, 1974 (88 Stat. 1428, as amended; D.C. Code, sec. 31-1719(b))[;].*

(6) [the] *The term "Department of Agriculture" means the United States Department of Agriculture[;].*

(7) [the] *The term "extension" means the informal education programs conducted in the States in cooperation with the Department of Agriculture[;].*

(8) the term "food and agricultural sciences" means basic, applied, and developmental research, extension, and teaching activities in the food, agricultural, renewable natural resources, forestry, and physical and social sciences, in the broadest sense of these terms, including but not limited to, activities relating to:

(A) agriculture, including soil and water conservation and use, the use of organic waste materials to improve soil tilth and fertility, plant and animal production and protection, and plant and animal health;

[(B) the processing, distributing, marketing, and utilization of food and agricultural products;

[(C) forestry, including range management, production of forest and range products, multiple use of forest and rangelands, and urban forestry;

[(D) aquaculture;

[(E) home economics, including consumer affairs, food and nutrition, clothing and textiles, housing, and family wellbeing and financial management;

[(F) rural community welfare and development;

[(G) youth development, including 4-H clubs;

[(H) domestic and export market expansion for United States agricultural products;

[(I) production inputs, such as energy, to improve productivity; and

[(J) international food and agricultural issues, such as agricultural development, development of institutions, germ plasm collection and preservation, information exchange and storage, and scientific exchanges;]

(8) *FOOD AND AGRICULTURAL SCIENCES.*—The term “*food and agricultural sciences*” means basic, applied, and developmental research, extension, and teaching activities in food and fiber, agricultural, renewable natural resources, forestry, and physical and social sciences, including (but not limited to) activities relating to the following:

(A) Animal health, production, and well-being.

(B) Plant health and production.

(C) Animal and plant germ plasm collection and preservation.

(D) Aquaculture.

(E) Food safety.

(F) Soil and water conservation and improvement.

(G) Forestry, horticulture, and range management.

(H) Nutritional sciences and promotion.

(I) Farm enhancement, including financial management, input efficiency, and profitability.

(J) Home economics.

(K) Rural human ecology.

(L) Youth development and agricultural education, including 4-H.

(M) Expansion of domestic and international markets for agricultural commodities and products, including agricultural trade barrier identification and comprehension.

(N) Information management and technology transfer related to agriculture.

(O) Biotechnology related to agriculture.

(9) [the] The term “Hispanic-serving institution” has the meaning given the term by section 316(b)(1) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)(1))[]:.

(10) [the] The term “land-grant colleges and universities” means those institutions eligible to receive funds under the Act of July 2, 1862 (12 Stat. 503–505, as amended; 7 U.S.C. 301–305, 307 and 308), or the Act of August 30, 1890 (26 Stat. 417–

419, as amended; 7 U.S.C. 321-326 and 328), including the [Tuskegee Institute;] *Tuskegee University*.

(11) [the] The term "Secretary" means the Secretary of Agriculture of the United States[;].

(12) [the] The term "State" means any one of the fifty States, the Commonwealth of Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Marianas, the Trust Territory of the Pacific Islands, the Virgin Islands of the United States, and the District of Columbia[;].

[(13)] The term "State agricultural experiment stations" means those institutions eligible to receive funds under the Act of March 2, 1887 (24 Stat. 440-442, as amended; 7 U.S.C. 361a-361i)[;].

(14) [the term "teaching" means] *TEACHING AND EDUCATION*.—The terms "teaching" and "education" mean formal classroom instruction, laboratory instruction, and practicum experience in the food and agricultural sciences and matters relating thereto (such as faculty development, student recruitment and services, curriculum development, instructional materials and equipment, and innovative teaching methodologies) conducted by colleges and universities offering baccalaureate or higher degrees[;].

(15) [the] The term "cooperating forestry schools" means those institutions eligible to receive funds under the Act of October 10, 1962 (16 U.S.C. 582a et seq.), commonly known as the McIntire-Stennis Act of 1962[;].

(16) [the] The term "State cooperative institutions" or "State cooperative agents" means institutions or agents designated by—

(A) the Act of July 2, 1862 (7 U.S.C. 301 et seq.), commonly known as the First Morrill Act;

(B) the Act of August 30, 1890 (7 U.S.C. 321 et seq.), commonly known as the Second Morrill Act, including the [Tuskegee Institute] *Tuskegee University*;

(C) the Act of March 2, 1887 (7 U.S.C. 361a et seq.), commonly known as the Hatch Act of 1887;

(D) the Act of May 8, 1914 (7 U.S.C. 341 et seq.), commonly known as the Smith-Lever Act;

(E) the Act of October 10, 1962 (16 U.S.C. 582a et seq.), commonly known as the McIntire-Stennis Act of 1962; and

(F) subtitles E, G, L, and M of this title[; and].

(17) [the] The term "sustainable agriculture" means an integrated system of plant and animal production practices having a site-specific application that will, over the long-term—

(A) satisfy human food and fiber needs;

(B) enhance environmental quality and the natural resource base upon which the agriculture economy depends;

(C) make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;

(D) sustain the economic viability of farm operations; and

(E) enhance the quality of life for farmers and society as a whole.

(18) **IN-KIND SUPPORT.**—The term "in-kind support", with regard to a requirement that the recipient of funds provided by the Secretary match all or some portion of the amount of the funds, means contributions such as office space, equipment, and staff support.

## Subtitle B—Coordination and Planning of Agricultural Research, Extension, and Teaching

\* \* \* \* \*

### **SEC. 1408. NATIONAL AGRICULTURAL RESEARCH, EXTENSION, EDUCATION, AND ECONOMICS ADVISORY BOARD.**

(a) \* \* \*

\* \* \* \* \*

[(d) **CONSULTATION.**—In carrying out this section, the Advisory Board shall solicit opinions and recommendations from persons who will benefit from and use federally funded agricultural research, extension, education, and economics.]

#### (d) **CONSULTATION.**—

(1) **AS AFFECTING ADVISORY BOARD.**—In carrying out this section, the Advisory Board shall solicit opinions and recommendations from persons who will benefit from and use federally funded agricultural research, extension, education, and economics.

(2) **AS AFFECTING SECRETARY.**—To comply with a provision of this title or any other law that requires the Secretary to consult or cooperate with the Advisory Board or that authorizes the Advisory Board to submit recommendations to the Secretary, the Secretary shall—

(A) solicit the written opinions and recommendations of the Advisory Board; and

(B) provide a written response to the Advisory Board regarding the manner and extent to which the Secretary will implement recommendations submitted by the Advisory Board.

\* \* \* \* \*

## Subtitle C—Agricultural Research and Education Grants and Fellowships

\* \* \* \* \*

### **SEC. 1417. GRANTS AND FELLOWSHIPS FOR FOOD AND AGRICULTURAL SCIENCES EDUCATION.**

(a) \* \* \*

\* \* \* \* \*

(j) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated for carrying out this section \$60,000,000 for each of the fiscal years 1990 through [1997] 2002.

\* \* \* \* \*

**SEC. 1419. GRANTS FOR RESEARCH ON THE PRODUCTION AND MARKETING OF ALCOHOLS AND INDUSTRIAL HYDROCARBONS FROM AGRICULTURAL COMMODITIES AND FOREST PRODUCTS.**

(a) \* \* \*

\* \* \* \* \*

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for the purposes of carrying out this section \$20,000,000 for each of the fiscal years 1991 through [1997] 2002.

**SEC. 1419A. POLICY RESEARCH CENTERS.**

(a) \* \* \*

\* \* \* \* \*

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section for [fiscal years 1996 and 1997] each of fiscal years 1996 through 2002.

\* \* \* \* \*

**Subtitle D—National Food and Human Nutrition Research and Extension Program**

\* \* \* \* \*

**SEC. 1424. HUMAN NUTRITION INTERVENTION AND HEALTH PROMOTION RESEARCH PROGRAM.**

(a) \* \* \*

\* \* \* \* \*

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section for [fiscal years 1996 and 1997] each of fiscal years 1996 through 2002.

**SEC. 1424A. PILOT RESEARCH PROGRAM TO COMBINE MEDICAL AND AGRICULTURAL RESEARCH.**

(a) \* \* \*

\* \* \* \* \*

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$10,000,000 for [fiscal year 1997] each of fiscal years 1997 through 2002 to carry out the pilot program.

**NUTRITION EDUCATION PROGRAM**

**SEC. 1425. (a) \* \* \***

\* \* \* \* \*

(c) Beginning with the fiscal year ending September 30, 1982—

(1) \* \* \*

\* \* \* \* \*

(3) There is authorized to be appropriated to carry out the expanded food and nutrition education program established under section 3(d) of the Act of May 8, 1914 (38 Stat. 373, chapter 79; 7 U.S.C. 343(d)) and this section, \$83,000,000 for each of fiscal years 1996 [and 1997] through 2002.

\* \* \* \* \*

## Subtitle E—Animal Health and Disease Research

\* \* \* \* \*

### APPROPRIATIONS FOR CONTINUING ANIMAL HEALTH AND DISEASE RESEARCH PROGRAMS

**SEC. 1433.** (a) There are authorized to be appropriated such funds as Congress may determine necessary to support continuing animal health and disease research programs at eligible institutions, but not to exceed \$25,000,000 for each of the fiscal years 1991 through [1997] 2002, and not in excess of such sums as may after the date of enactment of this title be authorized by law for any subsequent fiscal year. Funds appropriated under this section shall be used: (1) to meet expenses of conducting animal health and disease research, publishing and disseminating the results of such research, and contributing to the retirement of employees subject to the provisions of the Act of March 4, 1940 (54 Stat. 39–40, as amended; 7 U.S.C. 331); (2) for administrative planning and direction; and (3) to purchase equipment and supplies necessary for conducting such research.

\* \* \* \* \*

### APPROPRIATIONS FOR RESEARCH ON NATIONAL OR REGIONAL PROBLEMS

**SEC. 1434.** (a) There are authorized to be appropriated such funds as Congress may determine necessary to support research on specific national or regional animal health or disease problems, or national or regional problems relating to pre-harvest, on-farm food safety, or animal well-being, but not to exceed \$35,000,000 for each of the fiscal years 1991 through [1997] 2002, and not in excess of such sums as may after the date of enactment of this title be authorized by law for any subsequent fiscal year.

\* \* \* \* \*

### [EXTENSION AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE INSTITUTE]

#### [SEC. 1444.]

#### **SEC. 1444. EXTENSION AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY.**

(a) There are hereby authorized to be appropriated annually such sums as Congress may determine necessary to support continuing agricultural and forestry extension at colleges eligible to receive funds under the Act of August 30, 1890 (26 Stat. 417–419, as amended; 7 U.S.C. 321–326 and 328), including [Tuskegee Institute] *Tuskegee University* (hereinafter in this section referred to as "eligible institutions"). Beginning with the fiscal year ending September 30, 1979, and ending with the fiscal year ending September 30, 1981, there shall be appropriated under this section for each fiscal year an amount not less than 4 per centum of the total appropriations for such year under the Act of May 8, 1914 (38 Stat. 372–374, as amended; 7 U.S.C. 341–349): *Provided*, That the amount appropriated for the fiscal year ending September 30, 1979, shall not be less than the amount made available for the fiscal year

ending September 30, 1978, to such eligible institutions under section 3(d) of the Act of May 8, 1914 (38 Stat. 373, as amended; 7 U.S.C. 343(d)). Beginning with the fiscal year ending September 30, 1982, there shall be appropriated under this section an amount not less than 5 ½ per centum, and for each fiscal year thereafter an amount not less than 6 per centum of the total appropriations for such year under the Act of May 8, 1914 (7 U.S.C. 341 et seq.), and related acts pertaining to cooperative extension work at the land-grant institutions identified in the Act of May 8, 1914 (38 Stat. 372, chapter 79; 7 U.S.C. 341 et seq.), except that for the purpose of this calculation, the total appropriations shall not include amounts made available after September 30, 1995, under section 3(d) of that Act (7 U.S.C. 343(d)), to carry out programs or initiatives for which no funds were made available under section 3(d) of that Act for fiscal year 1995, or any previous fiscal year, as determined by the Secretary, and shall not include amounts made available after September 30, 1995, to carry out programs or initiatives funded under section 3(d) of that Act prior to that date that are in excess of the highest amount made available for the programs or initiatives for fiscal year 1995, or any previous fiscal year, as determined by the Secretary. Funds appropriated under this section shall be used for expenses of conducting extension programs and activities, and for contributing to the retirement of employees subject to the provisions of the Act of March 4, 1940 (54 Stat. 30-40, as amended; 7 U.S.C. 331). No more than 20 per centum of the funds received by an institution in any fiscal year may be carried forward to the succeeding fiscal year.

(b) Beginning with the fiscal year ending September 30, 1979—

(1) \* \* \*

\* \* \* \* \*

In computing the distribution of funds allocated under paragraph (2) of this subsection, the allotments to [Tuskegee Institute] Tuskegee University and Alabama Agricultural and Mechanical University shall be determined as if each institution were in a separate State.

\* \* \* \* \*

**[(d)] (d) ASCERTAINMENT OF ENTITLEMENT TO FUNDS; TIME AND MANNER OF PAYMENT; STATE REPORTING REQUIREMENTS; AND PLANS FOR WORK.—**

(1) **ASCERTAINMENT OF ENTITLEMENT.**—On or about the first day of October in each year after enactment of this title, the Secretary shall ascertain whether each eligible institution is entitled to receive its share of the annual appropriation for extension work under this section and the amount which it is entitled to receive. Before the funds herein provided shall become available to any eligible institution for any fiscal year, plans for the work to be carried out under this section shall be submitted, as part of the State plan of work, and approved by the Secretary. [Such sums]

(2) **TIME AND MANNER OF PAYMENT; RELATED REPORTS.**—The amount to which an eligible institution is entitled shall be paid in equal quarterly payments on or about October 1, January 1, April 1, and July 1 of each year to the treasurer or other officer

of the eligible institution duly authorized to receive such payments and such officer shall be required to report to the Secretary on or about the first day of December of each year a detailed statement of the amount so received during the previous fiscal year and its disbursement, on forms prescribed by the Secretary.

(3) *REQUIREMENTS RELATED TO PLAN OF WORK.*—*Each extension plan of work for an eligible institution required under this section shall contain descriptions of the following:*

(A) *The critical short-term, intermediate, and long-term agricultural issues in the State in which the eligible institution is located and the current and planned extension programs and projects targeted to address such issues.*

(B) *The process established to consult with extension users regarding the identification of critical agricultural issues in the State and the development of extension programs and projects targeted to address such issues.*

(C) *The efforts made to identify and collaborate with other colleges and universities within the State and other States that have unique capacity to address the identified agricultural issues in the State and current and emerging efforts (including regional research efforts) to work with these other institutions and States.*

(D) *The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.*

(E) *The education and outreach programs already underway to convey currently available research results that are pertinent to a critical agricultural issue, including efforts to encourage multi-county cooperation in the dissemination of research results.*

(4) *EXTENSION PROTOCOLS.*—*The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary extension activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under this section. The Secretary shall develop the protocols in consultation with the Advisory Board and land-grant colleges and universities.*

(5) *TREATMENT OF PLANS OF WORK FOR OTHER PURPOSES.*—*To the extent practicable, the Secretary shall consider plans of work submitted under this section to satisfy other appropriate Federal reporting requirements.*

\* \* \* \* \*

[(f) If the Secretary finds that an eligible institution is not entitled to receive its share of the annual appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the next Congress in order that the institution may, if it should so desire, appeal to Congress from the determination of the Sec-

retary. If the next Congress does not direct such sum to be paid, it shall be carried to surplus.]

[(g)] (f) To the extent that the official mail consists of correspondence, bulletins, and reports for furtherance of the purposes of this section, it shall be transmitted in the mails of the United States under penalty indicia: *Provided*, That each item shall bear such indicia as are prescribed by the Postmaster General and shall be mailed under such regulations as the Postmaster General may from time to time prescribe. Such items may be mailed from a principal place of business of each eligible institution or from an established subunit of such institution.

\* \* \* \*

**[AGRICULTURAL RESEARCH AT 1890 LAND-GRANT COLLEGES,  
INCLUDING TUSKEGEE INSTITUTE]**

**[SEC. 1445.]**

**SEC. 1445. AGRICULTURAL RESEARCH AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY.**

(a) There are hereby authorized to be appropriated annually such sums as Congress may determine necessary to support continuing agricultural research at colleges eligible to receive funds under the Act of August 30, 1890 (26 Stat. 417-419, as amended; 7 U.S.C. 321-326 and 328), including [Tuskegee Institute] *Tuskegee University* (hereinafter referred to in this section as "eligible institutions"). Beginning with the fiscal year ending September 30, 1979, there shall be appropriated under this section for each fiscal year an amount not less than 15 per centum of the total appropriations for such year under section 3 of the Act of March 2, 1887 (24 Stat. 441, as amended; 7 U.S.C. 361c): *Provided*, That the amount appropriated for the fiscal year ending September 30, 1979, shall not be less than the amount made available in the fiscal year ending September 30, 1978, to such eligible institutions under the Act of August 4, 1965 (79 Stat. 431, 7 U.S.C. 450i). Funds appropriated under this section shall be used for expenses of conducting agricultural research, printing, disseminating the results of such research, contributing to the retirement of employees subject to the provisions of the Act of March 4, 1940 (54 Stat. 39-40, as amended; 7 U.S.C. 331), administrative planning and direction, and purchase and rental of land and the construction, acquisition, alteration, or repair of buildings necessary for conducting agricultural research. The eligible institutions are authorized to plan and conduct agricultural research in cooperation with each other and such agencies, institutions, and individuals as may contribute to the solution of agricultural problems, and moneys appropriated pursuant to this section shall be available for paying the necessary expenses of planning, coordinating, and conducting such cooperative research. No more than 5 percent of the funds received by an institution in any fiscal year, under this section, may be carried forward to the succeeding fiscal year.

(b) Beginning with the fiscal year ending September 30, 1979, the funds appropriated in each fiscal year under this section shall be distributed as follows:

(1) \* \* \*

(2) The remainder shall be allotted among the eligible institutions as follows:

(A) \* \* \*

(B) Of funds in excess of the amount allocated under subparagraph (A) of this paragraph, 20 per centum shall be allotted among eligible institutions in equal proportions; 40 per centum shall be allotted among the eligible institutions in the proportion that the rural population of the State in which each eligible institution is located bears to the total rural population of all the States in which eligible institution are located, as determined by the last preceding decennial census current at the time each such additional sum is first appropriated; and the balance shall be allotted among the eligible institutions in the proportion that the farm population of the State in which each eligible institution is located bears to the total farm population of all the States in which the eligible institutions are located, as determined by the last preceding decennial census current at the time each such additional sum is first appropriated. In computing the distribution of funds allocated under this subparagraph, the allotments to [Tuskegee Institute] Tuskegee University and Alabama Agricultural and Mechanical University shall be determined as if each institution were in a separate State.

**[(c)] (c) PROGRAM AND PLANS FOR WORK.—**

(1) *INITIAL COMPREHENSIVE PROGRAM OF AGRICULTURAL RESEARCH.*—The director of the State agricultural experiment station in each State where an eligible institution is located and the research director specified in subsection (d) of this section in each of the eligible institutions in such State shall jointly develop, by mutual agreement, a comprehensive program of agricultural research in such State, to be submitted for approval by the Secretary within one year after the date of enactment of this title.

(2) *PLAN OF WORK REQUIRED.*—Before funds may be provided to an eligible institution under this section for any fiscal year, plans for the work to be carried on under this section shall be submitted by the research director specified in subsection (d) and approved by the Secretary of Agriculture.

(3) *REQUIREMENTS RELATED TO PLAN OF WORK.*—Each research plan of work required under paragraph (2) shall contain descriptions of the following:

(A) The critical short-term, intermediate, and long-term agricultural issues in the State in which the eligible institution is located and the current and planned research programs and projects targeted to address such issues.

(B) The process established to consult with users of agricultural research regarding the identification of critical agricultural issues in the State and the development of research programs and projects targeted to address such issues.

(C) Other colleges and universities in the State and other States that have unique capacity to address the identified agricultural issues in the State.

(D) The current and emerging efforts to work with these other institutions and States to build on each other's experience and take advantage of each institution's unique capacities.

(E) The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.

(4) RESEARCH PROTOCOLS.—The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary research activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under paragraph (2). The Secretary shall develop the protocols in consultation with the Advisory Board and land-grant colleges and universities.

\* \* \* \* \*

(g)(1) \* \* \*

[(2) If it appears to the Secretary from the annual statement of receipts and expenditures of funds by any eligible institution that an amount in excess of 5 percent of the preceding annual appropriation allotted to that institution under this section remains unexpended, such amount in excess of 5 percent of the preceding annual appropriation allotted to that institution shall be deducted from the next succeeding annual allotment to the institution.]

[(3) If the Secretary withholds from any eligible institution any portion of the appropriations available for allotment, the facts and reasons therefor shall be reported to the President and the amount involved shall be kept separate in the Treasury until the close of the next Congress. If the next Congress does not direct such sum to be paid, it shall be carried to surplus.]

[(4)] (2) The Secretary shall make an annual report to Congress during the first regular session of each year of the receipts and expenditures and work of the eligible institutions under the provisions of this section and also whether any portion of the appropriation available for allotment to any institution has been withheld and if so the reasons therefor.

\* \* \* \* \*

#### SEC. 1447. GRANTS TO UPGRADE AGRICULTURAL AND FOOD SCIENCES FACILITIES AT 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE UNIVERSITY.

(a) \* \* \*

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Agriculture for the purposes of carrying out the provisions of this section, \$15,000,000 for each of fiscal years 1996 [and 1997] through 2002, and such sums shall remain available until expended.

\* \* \* \* \*

**SEC. 1448. NATIONAL RESEARCH AND TRAINING CENTENNIAL CENTERS.**

(a) COMPETITIVE GRANTS AUTHORIZED.—The Secretary of Agriculture may make a competitive grant to five national research and training centennial centers located at colleges (or a consortia of such colleges) eligible to receive funds under the Act of August 30, 1890 (7 U.S.C. 321 et seq.), including Tuskegee University, that—  
 (1) have been designated by the Secretary for the fiscal years 1991 through 1995, or fiscal years 1996 [and 1997] through 2002, as national research and training centennial centers; and

\* \* \* \* \*

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$2,000,000 for each of the fiscal years 1991 through [1997] 2002 for grants under this section.

\* \* \* \* \*

**SEC. 1449. MATCHING FUNDS REQUIREMENT FOR RESEARCH AND EXTENSION ACTIVITIES AT ELIGIBLE INSTITUTIONS.**

(a) DEFINITIONS.—*In this section:*

(1) *ELIGIBLE INSTITUTION.*—The term “eligible institution” means a college eligible to receive funds under the Act of August 30, 1890 (7 U.S.C. 321 et seq.) (commonly known as the Second Morrill Act), including Tuskegee University.

(2) *FORMULA FUNDS.*—The term “formula funds” means the formula allocation funds distributed to eligible institutions under sections 1444 and 1445.

(b) DETERMINATION OF NON-FEDERAL SOURCES OF FUNDS.—Not later than September 30, 1999, each eligible institution shall submit to the Secretary a report describing for fiscal year 1999 the sources of non-Federal funds available to the eligible institution and the amount of funds generally available from each such source.

(c) MATCHING FORMULA.—Notwithstanding any other provision of this subtitle, the distribution of formula funds to an eligible institution shall be subject to the following matching requirements:

(1) In fiscal year 2000, the institution shall provide matching funds from non-Federal sources in an amount equal to not less than 30 percent of the formula funds to be distributed to the eligible institution.

(2) In fiscal year 2001, the institution shall provide matching funds from non-Federal sources in an amount equal to not less than 45 percent of the formula funds to be distributed to the eligible institution.

(3) In fiscal year 2002, and each fiscal year thereafter, the institution shall provide matching funds from non-Federal sources in an amount equal to not less than 50 percent of the formula funds to be distributed to the eligible institution.

(d) LIMITED WAIVER AUTHORITY.—Notwithstanding subsection (f), the Secretary may waive the matching funds requirement under subsection (c)(1) for fiscal year 2000 if the Secretary determines with regard to a particular eligible institution, based on the report received under subsection (b), that the eligible institution will be unlikely to satisfy the matching requirement. The waiver of the matching requirements for subsequent fiscal years is not permitted.

(e) **USE OF MATCHING FUNDS.**—Under terms and conditions established by the Secretary, matching funds provided as required by subsection (c) may be used by an eligible institution for research, education, and extension activities.

(f) **REDISTRIBUTION OF FUNDS.**—Federal funds that are not matched by an eligible institution in accordance with subsection (c) for a fiscal year shall be redistributed by the Secretary to eligible institutions satisfying the matching funds requirement for that fiscal year. Any redistribution of funds under this subsection shall be subject to the applicable matching requirement specified in subsection (c) and shall be made in a manner consistent with sections 1444 and 1445, as determined by the Secretary.

## **Subtitle H—Programs for Hispanic-Serving Institutions**

### **SEC. 1455. EDUCATION GRANTS PROGRAMS FOR HISPANIC-SERVING INSTITUTIONS.**

(a) \* \* \*

\* \* \* \* \*

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to make grants under this section \$20,000,000 for [fiscal year 1997] each of the fiscal years 1997 through 2002.

[Subtitle I—International Agricultural Research and Extension]

## **Subtitle I—International Research, Extension, and Teaching**

### **SEC. 1458. INTERNATIONAL AGRICULTURAL [RESEARCH AND EXTENSION] RESEARCH, EXTENSION, AND TEACHING.**

(a) **AUTHORITY OF THE SECRETARY.**—To carry out the policy of this subtitle, the Secretary (in consultation with the Agency for International Development and subject to such coordination with other Federal officials, Departments, and agencies as the President may direct) may—

(1) expand the operational coordination of the Department of Agriculture with institutions and other persons throughout the world performing agricultural and [related research and extension] related research, extension, and teaching activities by—

(A) exchanging research materials and results with the institutions or persons; and

(B) conducting with the institutions or persons joint or coordinated [research and extension on] research, extension, and teaching activities addressing problems of significance to food and agriculture in the United States;

(2) enter into cooperative arrangements with Departments and Ministries of Agriculture in other nations to conduct research, extension, and [education] teaching activities in support of the development of a viable and sustainable global agricultural system, including efforts to establish a global system for plant genetic resources conservation;

(3) enter into agreements with land-grant colleges and universities, the Agency for International Development, and international organizations (such as the United Nations, World Bank, regional development banks, the International Agricultural Research Center), or other organizations, institutions or individuals with comparable goals, to promote and support the development of a viable and sustainable global agricultural system;

(4) further develop within the Department highly qualified and experienced [scientists and experts] *science and education experts* who specialize in international programs, to be available to carry out the activities described in this section;

(5) work with transitional and more advanced countries in food, agricultural, and related research, development, *teaching*, and extension (including providing technical assistance, training, and advice to persons from the countries engaged in the activities and the stationing of scientists and other specialists at national and international institutions in the countries);

(6) expand collaboration and coordination with the Agency for International Development regarding food and agricultural research, extension, and [education] *teaching* programs in developing countries;

(7) assist colleges and universities in strengthening their capabilities for food, agricultural, and related [research and extension that is] *research, extension, and teaching programs* relevant to agricultural development activities in other countries through—

(A) \* \* \*

\* \* \* \* \*

(8) continue, in cooperation with the Secretary of State, a program, coordinated through the International Arid Land Consortium, to enhance collaboration and cooperation between institutions possessing [research capabilities] *research, extension, and teaching capabilities* applied to the development, management, and reclamation of arid lands.

(b) ENHANCING LINKAGES.—The Secretary shall draw upon and enhance the resources of the land-grant colleges and universities, and other colleges and universities, for developing linkages among these institutions, the Federal Government, international research centers, and [counterpart agencies] *counterpart research, extension, and teaching agencies* and institutions in both the developed and less-developed countries to serve the purposes of agriculture and the economy of the United States and to make a substantial contribution to the cause of improved food and agricultural progress throughout the world.

\* \* \* \* \*

(d) FULL PAYMENT OF FUNDS MADE AVAILABLE FOR CERTAIN BINATIONAL PROJECTS.—Notwithstanding any other provision of law, the full amount of any funds appropriated or otherwise made available to carry out cooperative projects under the arrangement entered into between the Secretary and the Government of Israel to support the Israel-United States Binational Agricultural Research and Development Fund shall be paid directly to the Fund.

**SEC. 1459. UNITED STATES-MEXICO JOINT AGRICULTURAL RESEARCH.**

(a) **RESEARCH AND DEVELOPMENT PROGRAM.**—The Secretary may provide for an agricultural research and development program with the United States/Mexico Foundation for Science, which will focus on binational problems facing agricultural producers and consumers in the two countries, in particular pressing problems in the areas of food safety, plant and animal pest control, and the natural resources base on which agriculture depends.

(b) **ADMINISTRATION.**—Grants under the research and development program shall be awarded competitively through the Foundation.

(c) **MATCHING REQUIREMENTS.**—The provision of funds to the Foundation by the United States Government shall be subject to the condition that the Government of Mexico match, on at least an equal ratio, any funds provided by the United States Government.

(d) **LIMITATION ON USE OF FUNDS.**—Funds provided under this section may not be used for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.

**SEC. 1459A. COMPETITIVE GRANTS FOR INTERNATIONAL AGRICULTURAL SCIENCE AND EDUCATION PROGRAMS.**

(a) **COMPETITIVE GRANTS AUTHORIZED.**—The Secretary may make competitive grants to colleges and universities in order to strengthen United States economic competitiveness and to promote international market development.

(b) **PURPOSE OF GRANTS.**—Grants under this section shall be directed to agricultural research, extension, and teaching activities that will—

(1) enhance the international content of the curricula in colleges and universities so as to ensure that United States students acquire an understanding of the international dimensions and trade implications of their studies;

(2) ensure that United States scientists, extension agents, and educators involved in agricultural research and development activities outside of the United States have the opportunity to convey the implications of their activities and findings to their peers and students in the United States and to the users of agricultural research, extension, and teaching;

(3) enhance the capabilities of colleges and universities to do collaborative research with other countries, in cooperation with other Federal agencies, on issues relevant to United States agricultural competitiveness;

(4) enhance the capabilities of colleges and universities to provide cooperative extension education to promote the application of new technology developed in foreign countries to United States agriculture; and

(5) enhance the capability of United States colleges and universities, in cooperation with other Federal agencies, to provide leadership and educational programs that will assist United States natural resources and food production, processing, and distribution businesses and industries to compete internationally, including product market identification, international policies limiting or enhancing market production, development of new or enhancement of existing markets, and production efficiencies.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such sums as may be necessary to carry out this section.

### Subtitle K—Funding and Miscellaneous Provisions

#### **SEC. 1461. RELEVANCE AND MERIT OF FEDERALLY FUNDED AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION.**

##### **(a) REVIEW OF COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE.—**

(1) **PEER REVIEW OF RESEARCH GRANTS.**—The Secretary shall establish procedures that provide for scientific peer review of each agricultural research grant administered, on a competitive basis, by the Cooperative State Research, Education, and Extension Service of the Department.

(2) **MERIT REVIEW OF EXTENSION AND EDUCATION.**—The Secretary shall establish procedures that provide for merit review of each agricultural extension or education grant administered, on a competitive basis, by the Cooperative State Research, Education, and Extension Service. The Secretary shall consult with the Advisory Board in establishing such merit review procedures.

(b) **REQUESTS FOR PROPOSALS: REQUEST AND CONSIDERATION OF INPUT.**—When formulating a request for proposals involving an agricultural research, extension, or education activity to be funded by the Secretary on a competitive basis, the Secretary shall solicit and consider input from the Advisory Board and users of agricultural research, extension, and education regarding the request for proposals for the preceding year. If an agricultural research, extension, or education activity has not been the subject of a previous request for proposals, the Secretary shall solicit and consider input from the Advisory Board and users of agricultural research, extension, and education before publication of the first request for proposals regarding the activity.

##### **(c) SCIENTIFIC PEER REVIEW OF AGRICULTURAL RESEARCH.—**

(1) **PEER REVIEW PROCEDURES.**—The Secretary shall establish procedures that ensure scientific peer review of all research activities conducted by the Department of Agriculture.

(2) **REVIEW PANEL REQUIRED.**—As part of the procedures established under paragraph (1), a review panel shall verify, at least once every three years, that each research activity of the Department and research conducted under each research program of the Department have scientific merit and relevance. If the research activity or program to be reviewed is included in the research, educational, and economics mission area of the Department, the review panel shall consider—

(A) the scientific merit and relevance of the activity or research in light of the priorities established pursuant to section 1402(b); and

(B) the national or multi-State significance of the activity or research.

(3) **COMPOSITION OF REVIEW PANEL.**—A review panel shall be composed of individuals with scientific expertise, a majority of whom are not employees of the agency whose research is being reviewed. To the extent possible, the Secretary shall use sci-

entists from colleges and universities to serve on the review panels.

(4) *SUBMISSION OF RESULTS.*—The results of the panel reviews shall be submitted to the Advisory Board.

(5) *APPLICABILITY OF OTHER LAWS.*—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of this Act (7 U.S.C. 2281 et seq.) shall not apply to a review panel.

(d) *MERIT REVIEW OF COLLEGE AND UNIVERSITY RESEARCH AND EXTENSION ACTIVITIES.*—

(1) *LAND-GRANT INSTITUTIONS.*—Effective beginning October 1, 1998, to be eligible to obtain agricultural research or extension funds from the Secretary for an activity, a land-grant college or university shall—

(A) establish a process for merit review of the activity; and

(B) review the activity in accordance with the process.

(2) *1994 INSTITUTIONS.*—Effective beginning October 1, 1998, to obtain agricultural extension funds from the Secretary for an activity, each 1994 Institution (as defined in section 532 of the Equity in Educational Land-Grant Status Act of 1994 (Public Law 103-382; 7 U.S.C. 301 note)) shall—

(A) establish a process for merit review of the activity; and

(B) review the activity in accordance with the process.

**AUTHORIZATION FOR APPROPRIATIONS FOR EXISTING AND CERTAIN NEW AGRICULTURAL RESEARCH PROGRAMS**

SEC. 1463. (a) Notwithstanding any authorization for appropriations for agricultural research in any Act enacted prior to the date of enactment of this title, there are hereby authorized to be appropriated for the purposes of carrying out the provisions of this title, except sections 1417, 1419, 1420, and the competitive grants program provided for in section 1414, and except that the authorization for moneys provided under the Act of March 2, 1887 (24 Stat. 440-442, as amended; 7 U.S.C. 361a-361i), is excluded and is provided for in subsection (b) of this section, \$850,000,000 for each of the fiscal years 1991 through [1997] 2002.

(b) Notwithstanding any authorization for appropriations for agricultural research at State agricultural experiment stations in any Act enacted prior to the date of enactment of this title, there are hereby authorized to be appropriated for the purpose of conducting agricultural research at State agricultural experiment stations pursuant to the Act of March 2, 1887 (24 Stat. 440-442, as amended; 7 U.S.C. 361a-361i), \$310,000,000 for each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

**AUTHORIZATION FOR APPROPRIATIONS FOR EXTENSION EDUCATION**

SEC. 1464. Notwithstanding any authorization for appropriations for the Cooperative Extension Service in any Act enacted prior to the date of enactment of this title, there are hereby authorized to be appropriated for the purposes of carrying out the extension programs of the Department of Agriculture \$420,000,000 for fiscal

year 1991, \$430,000,000 for fiscal year 1992, \$440,000,000 for fiscal year 1993, \$450,000,000 for fiscal year 1994, and \$460,000,000 for each of fiscal years 1995 through [1997] 2002.

\* \* \* \* \*

#### [WITHHOLDING OF FUNDS

**[SEC. 1468.]** Except as provided elsewhere in this Act or any other Act of Congress, if the Secretary determines that an institution or State is not entitled to receive its allotment of an annual appropriation under any provision of this title because of a failure to satisfy requirements of this title or regulations issued under it, the Secretary shall withhold such amounts, the facts and reasons concerning the determination and withholding shall be reported to the President, and the amount involved shall be deposited in the miscellaneous receipts of the Treasury.]

\* \* \* \* \*

#### COST-REIMBURSABLE AGREEMENTS

**SEC. 1473A.** Notwithstanding any other provision of law, the Secretary of Agriculture may enter into cost-reimbursable agreements with State cooperative institutions or other colleges and universities without regard to any requirement for competition, for the acquisition of goods or services, including personal services, to carry out agricultural research, extension, or teaching activities of mutual interest. Reimbursable costs under such agreements shall include the actual direct costs of performance, as mutually agreed on by the parties, and the indirect costs of performance, not exceeding 10 percent of the direct cost.

**SEC. 1473B. TASK FORCE ON 10-YEAR STRATEGIC PLAN FOR AGRICULTURAL RESEARCH FACILITIES.**

(a) **ESTABLISHMENT.**—Not later than 6 months after the date of enactment of the Federal Agriculture Improvement and Reform Act of 1996, the Secretary shall establish a task force, to be known as the "Strategic Planning Task Force". The task force shall be comprised of 15 members.

(b) **COMPOSITION.**—The Secretary shall select the members of the task force from a list of individuals recommended by the Advisory Board established under section 1408 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3123). In submitting the list to the Secretary, the Board may recommend for selection individuals (including members of the Advisory Board) who have expertise in facilities development, modernization, construction, consolidation, and closure.

(c) **DUTIES.**—The task force shall review all currently operating agricultural research facilities constructed in whole or in part with Federal funds, and all planned agricultural research facilities proposed to be constructed with Federal funds, pursuant to criteria established by the Secretary, to ensure that a comprehensive research capacity is maintained.

(d) **10-YEAR STRATEGIC PLAN.**—Not later than 2 years after the task force is established, the task force shall prepare and submit to the Secretary and the congressional agriculture committees a 10-

*year strategic plan, reflecting both national and regional perspectives, for development, modernization, construction, consolidation, and closure of Federal agricultural research facilities and agricultural research facilities proposed to be constructed with Federal funds.*

**(e) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.—**

*(1) PUBLIC MEETINGS.—All meetings of the task force shall be publicly announced in advance and shall be open to the public. Detailed minutes of meetings and other appropriate records of the activities of the task force shall be kept and made available to the public on request.*

*(2) EXEMPTION.—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to the task force.*

**(f) DEFINITION OF AGRICULTURAL RESEARCH FACILITY.—***In this section the term "agricultural research facility" means a facility for research in food and agricultural sciences.*

\* \* \* \* \*

#### SUPPLEMENTAL AND ALTERNATIVE CROPS

SEC. 1473D. (a) Notwithstanding any other provision of law, during the period beginning October 1, 1986, and ending September 30, [1997] 2002, the Secretary shall develop and implement a research project for the development of supplemental and alternative crops, using such funds as are appropriated to the Secretary each fiscal year under this title.

\* \* \* \* \*

#### Subtitle L—Aquaculture

##### [SEC. 1476. AQUACULTURE RESEARCH FACILITIES.]

**[(a) GRANT AUTHORIZED.—**In order to gain further knowledge of intensive water recirculating aquaculture systems, the Secretary may make grants for the purpose of further developing and expanding aquaculture research facilities at Illinois State University in Normal, Illinois, and Virginia Polytechnic Institute and State University in Blacksburg, Virginia, and to conduct such programs as are necessary to do basic and applied research for intensive water recirculating aquaculture systems.

**[(b) AUTHORIZATION OF APPROPRIATIONS.—**There are authorized, in the event the Secretary decides to take action under subsection (a), to be appropriated \$500,000 for each of the two facilities for fiscal years 1991 through 1997 to carry out this section.]

#### AUTHORIZATION FOR APPROPRIATIONS

SEC. 1477. There is authorized to be appropriated \$7,500,000 for each of the fiscal years 1991 through [1997] 2002. Funds appropriated under this section or section 1476 may not be used to acquire or construct a building.

#### Subtitle M—Rangeland Research

\* \* \* \* \*

## APPROPRIATIONS

SEC. 1483. (a) There are authorized to be appropriated, to implement the provisions of this subtitle, such sums not to exceed \$10,000,000 for each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

## SMITH-LEVER ACT

\* \* \* \* \*

SEC. 3. (a) \* \* \*

(b)(1) Out of such sums, each State and the [Federal Extension Service] *Secretary of Agriculture* shall be entitled to receive annually a sum of money equal to the sums available from Federal cooperative extension funds for the fiscal year 1962, and subject to the same requirements as to furnishing of equivalent sums by the State, except that amounts heretofore made available to the Secretary for allotment on the basis of special needs shall continue available for use on the same basis.

\* \* \* \* \*

(c) Any sums made available by the Congress or further development of cooperative extension work in addition to those referred to in subsection (b) hereof shall be distributed as follows:

1. Four per centum of the sum so appropriated for each fiscal year shall be allotted to the [Federal Extension Service] *Secretary of Agriculture* for administrative, technical, and other services, and for coordinating the extension work of the Department and the several States, Territories and possessions.

2. Of the remainder so appropriated for each fiscal year 20 per centum shall be paid to the several States in equal proportions, 40 per centum shall be paid to the several States in the proportion that the rural population of each bears to the total rural population of the several States as determined by the census, and the balance shall be paid to the several States in the proportion that the farm population of each bears to the total farm population of the several States as determined by the census: *Provided*, [That payments out of the additional appropriations for further development of extension work authorized herein may be made subject to the making available of such sums of public funds by the States from non-Federal funds for the maintenance of cooperative agricultural extension work provided for in this Act, as may be provided by the Congress at the time such additional appropriations are made: *Provided further*,] That any appropriation made hereunder shall be allotted in the first and succeeding years on the basis of the decennial census current at the time such appropriation is first made, and as to any increase, on the basis of decennial census current at the time such increase is first appropriated.

(d) The [Federal Extension Service] *Secretary of Agriculture* shall receive such amounts as Congress shall determine for administration, technical, and other services and for coordinating the extension work of the Department and the several States, Territories, and possessions. A college or university eligible to receive funds under the Act of August 30, 1890 (7 U.S.C. 321 et seq.), including

Tuskegee University, may apply for and receive directly from the Secretary of Agriculture—

(1) \* \* \*

\* \* \* \* \*

[(e) Insofar as the provisions of subsections (b) and (c) of this section, which require or permit Congress to require matching of Federal funds, apply to the Virgin Islands of the United States and Guam, such provisions shall be deemed to have been satisfied, for the fiscal years ending September 30, 1978, and September 30, 1979, only, if the amounts budgeted and available for expenditure by the Virgin Islands of the United States and Guam in such years equal the amounts budgeted and available for expenditure by the Virgin Islands of the United States and Guam in the fiscal year ending September 30, 1977.

[(f) There shall be no matching requirement for funds made available pursuant to subsection (b)(3).]

(e) *MATCHING FUNDS.—*

*(1) REQUIREMENT.—No allotment shall be made to a State under subsections (b) and (c), and no payments of such allotment shall be made to a State, in excess of the amount which the State makes available out of non-Federal funds for cooperative extension work.*

*(2) FAILURE TO PROVIDE MATCHING FUNDS.—If a State fails to comply with the requirement to provide matching funds for a fiscal year under paragraph (1), the Secretary of Agriculture shall withhold from payment to the State for that fiscal year an amount equal to the difference between—*

*(A) the amount that would be allotted and paid to the State under subsections (b) and (c) (if the full amount of matching funds were provided by the State); and*

*(B) the amount of matching funds actually provided by the State.*

*(3) REAPPORTIONMENT.—The Secretary shall reapportion amounts withheld under paragraph (2) for a fiscal year among the States satisfying the matching requirement for that fiscal year. Any reapportionment of funds under this paragraph shall be subject to the matching requirement specified in paragraph (1).*

(f) *MATCHING FUNDS EXCEPTION FOR 1994 INSTITUTIONS.—There shall be no matching requirement for funds made available to 1994 Institutions pursuant to subsection (b)(3).*

(g)(1) The Secretary of Agriculture may conduct educational, instructional, demonstration, and publication distribution programs [through the Federal Extension Service] and enter into cooperative agreements with private nonprofit and profit organizations and individuals to share the cost of such programs through contributions from private sources as provided in this subsection.

\* \* \* \* \*

[SEC. 4.]

**SEC. 4. ASCERTAINMENT OF ENTITLEMENT OF STATE TO FUNDS, TIME AND MANNER OF PAYMENT, STATE REPORTING REQUIREMENTS, AND PLANS FOR WORK.**

(a) **ASCERTAINMENT OF ENTITLEMENT.**—On or about the first day of October in each year after the passage of this Act, the Secretary of Agriculture shall ascertain as to each State whether it is entitled to receive its share of the annual appropriation for cooperative agricultural extension work under this Act and the amount which it is entitled to receive. Before the funds herein provided shall become available to any college for any fiscal year, plans for the work to be carried on under this Act shall be submitted by the proper officials of each college and approved by the Secretary of Agriculture. The Secretary shall ensure that each college seeking to receive funds under this Act has in place appropriate guidelines, as determined by the Secretary, to minimize actual or potential conflicts of interest among employees of such college whose salaries are funded in whole or in part with such funds. [Such sums]

(b) **TIME AND MANNER OF PAYMENT; RELATED REPORTS.**—*The amount to which a State is entitled shall be paid in equal quarterly payments in or about July, October, January, and April of each year to the treasurer or other officer of the State duly authorized by the laws of the State or receive the same, and such officer shall be required to report to the Secretary of Agriculture on or about the first day of April of each year, a detailed statement of the amount so received during the previous fiscal year and its disbursement, on forms prescribed by the Secretary of Agriculture.*

(c) **REQUIREMENTS RELATED TO PLAN OF WORK.**—*Each extension plan of work for a State required under subsection (a) shall contain descriptions of the following:*

(1) *The critical short-term, intermediate, and long-term agricultural issues in the State and the current and planned extension programs and projects targeted to address such issues.*

(2) *The process established to consult with extension users regarding the identification of critical agricultural issues in the State and the development of extension programs and projects targeted to address such issues.*

(3) *The efforts made to identify and collaborate with other colleges and universities within the State and other States that have unique capacity to address the identified agricultural issues in the State and current and emerging efforts to work with these other institutions and States.*

(4) *The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.*

(5) *The education and outreach programs already underway to convey currently available research results that are pertinent to a critical agricultural issue, including efforts to encourage multi-county cooperation in the dissemination of research results.*

(d) **EXTENSION PROTOCOLS.**—*The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary extension activities and*

*joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under subsection (a). The Secretary shall develop the protocols in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board and land-grant colleges and universities.*

*(e) TREATMENT OF PLANS OF WORK FOR OTHER PURPOSES.—To the extent practicable, the Secretary shall consider plans of work submitted under subsection (a) to satisfy other appropriate Federal reporting requirements.*

\* \* \* \* \*

**[SEC. 6.]** If the Secretary of Agriculture finds that a State is not entitled to receive its share of the annual appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the Congress next succeeding a session of the legislature of the State from which funds have been withheld in order that the State may, if it should so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury.]

\* \* \* \* \*

#### **SEC. 11. SHORT TITLE.**

*This Act may be cited as the "Smith-Lever Act".*

### **HATCH ACT OF 1877**

**SECTION 1.** It is the policy of Congress to continue the agricultural research at State agricultural experiment stations which has been encouraged and supported by the Hatch Act of 1887, the Adams Act of 1906, the Purnell Act of 1925, the Bankhead-Jones Act of 1935, and title I, section 9, of that Act as added by the Act of August 14, 1946, and Acts amendatory and supplementary thereto, and to promote the efficiency of such research by a codification and simplification of such laws. As used in this Act, the terms "State" or "States" are defined to include the several States, including the District of Columbia, [Alaska, Hawaii,] Puerto Rico, Guam and the Virgin Islands. As used in this Act, the term "State agricultural experiment station" means a department which shall have been established, under direction of the college or university or agricultural departments of the college or university in each State in accordance with an Act approved July 2, 1862 (12 Stat. 503), entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts"; or such other substantially equivalent arrangements as any State shall determine.

\* \* \* \* \*

#### **SEC. 3. (a) \* \* \***

**(b)(1)** Out of such sums each State shall be entitled to receive annually a sum of money equal to and subject to the same requirement as to use for marketing research projects as the sums received from Federal appropriations for State agricultural experiment stations for the fiscal year 1955, except that amounts here-

tofore made available from the fund known as the "Regional research fund. Office of Experiment Stations" shall continue to be available for the support of cooperative regional projects as defined in [subsection 3(c)(3)] subsection (c)3, and the said fund shall be designated "Regional research fund, State agricultural experiment stations", and the Secretary of Agriculture shall be entitled to receive annually for the administration of this Act, a sum not less than that available for this purpose for the fiscal year ending June 30, 1955: *Provided*, That if the appropriations hereunder available for distribution in any fiscal year are less than those for the fiscal year 1955 the allotment to each State and the amounts for Federal administration and the regional research fund shall be reduced in proportion to the amount of such reduction.

\* \* \* \* \*

[(d) Of any amount in excess of \$90,000 available under this Act for allotment to any State, exclusive of the regional research fund, State agricultural experiment stations, no allotment and no payments thereof shall be made in excess of the amount which the State makes available out of its own funds for research and for the establishment and maintenance of facilities necessary for the prosecution of such research: And provided further, That if any State fails to make available for such research purposes for any fiscal year a sum equal to the amount in excess of \$90,000 to which it may be entitled for such year, the remainder of such amount shall be withheld by the Secretary of Agriculture and reapportioned among the States.]

(d) *MATCHING FUNDS.*—

(1) *REQUIREMENT.*—*Except as provided in paragraph (4), no allotment shall be made to a State under subsections (b) and (c), and no payments of such allotment shall be made to a State, in excess of the amount which the State makes available out of non-Federal funds for agricultural research and for the establishment and maintenance of facilities for the performance of such research.*

(2) *FAILURE TO PROVIDE MATCHING FUNDS.*—*If a State fails to comply with the requirement to provide matching funds for a fiscal year under paragraph (1), the Secretary of Agriculture shall withhold from payment to the State for that fiscal year an amount equal to the difference between—*

*(A) the amount that would be allotted and paid to the State under subsections (b) and (c) (if the full amount of matching funds were provided by the State); and*

*(B) the amount of matching funds actually provided by the State.*

(3) *REAPPORTIONMENT.*—*The Secretary shall reapportion amounts withheld under paragraph (2) for a fiscal year among the States satisfying the matching requirement for that fiscal year. Any reapportionment of funds under this paragraph shall be subject to the matching requirement specified in paragraph (1).*

(4) *EXCEPTION.*—*Paragraph (1) shall not apply to funds provided to a State from the Regional research fund, State agricultural experiment stations.*

(e) "Administration" as used in this section shall include participation in planning and coordinating cooperative regional research as defined in [subsection 3(c)3] subsection (c)3.

\* \* \* \* \*

SEC. 5. Sums available for allotment to the States under the terms of this Act, excluding the [regional research fund authorized by subsection 3(c)(3)] *Regional research fund, State agricultural experiment stations*, shall be paid to each State agricultural experiment station in equal quarterly payments beginning on the first day of October of each fiscal year upon vouchers approved by the Secretary of Agriculture. Each such station authorized to receive allotted funds shall have a chief administrative officer known as a director, and a treasurer or other officer appointed by the government board of the station. Such treasurer or other officer shall receive and account for all funds allotted to the State under the provisions of this Act and shall report, with the approval of the director to the Secretary of Agriculture on or before the first day of December of each year a detailed statement of the amount received under provisions of this Act during the preceding fiscal year, and of its disbursement on schedules prescribed by the Secretary of Agriculture. If any portion of the allotted moneys received by the authorized receiving officer of any State agricultural experiment station shall by any action or contingency be diminished, lost, or misapplied, it shall be replaced by the State concerned and until so replaced no subsequent appropriation shall be allotted or paid to such State.

\* \* \* \* \*

#### **[SEC. 7.]**

#### **SEC. 7. DUTIES OF SECRETARY, ASCERTAINMENT OF ENTITLEMENT OF STATE TO FUNDS, AND PLANS FOR WORK.**

(a) *DUTIES OF SECRETARY.*—The Secretary of Agriculture is hereby charged with the responsibility for the proper administration of this Act, and is authorized and directed to prescribe such rules and regulations as may be necessary to carry out its provisions. It shall be the duty of the Secretary to furnish such advice and assistance as will best promote the purposes of this Act, including participation in coordination of research initiated under this Act by the State agricultural experiment stations, from time to time to indicate such lines of inquiry as to him seem most important, and to encourage and assist in the establishment and maintenance of co-operation by and between the several State agricultural experiment stations, and between the stations and the United States Department of Agriculture.

[On or before] (b) *ASCERTAINMENT OF ENTITLEMENT.*—*On or before* the first day of October in each year after the passage of this Act, the Secretary of Agriculture shall ascertain as to each State whether it is entitled to receive its share of the annual appropriations for agricultural experiment stations under this Act and the amount which thereupon each is entitled, respectively, to receive.

[Whenever it shall appear] (c) *EFFECT OF FAILURE TO EXPEND FULL ALLOTMENT.*—*Whenever it shall appear* to the Secretary of Agriculture from the annual statement of receipts and expenditures of funds by any State agricultural experiment station that

any portion of the preceding annual appropriation allotted to that station under this Act remains unexpended, such amount shall be deducted from the next succeeding annual allotment to the State concerned.

[If the Secretary of Agriculture shall withhold from any State any portion of the appropriations available for allotment, the facts and reasons therefor shall be reported to the President and the amount involved shall be kept separate in the Treasury until the close of the next Congress. If the next Congress shall not direct such sum to be paid, it shall be carried to surplus.]

(d) *PLAN OF WORK REQUIRED.*—*Before funds may be provided to a State under this Act for any fiscal year, plans for the work to be carried on under this Act shall be submitted by the proper officials of the State and approved by the Secretary of Agriculture.*

(e) *REQUIREMENTS RELATED TO PLAN OF WORK.*—*Each research plan of work for a State required under subsection (d) shall contain descriptions of the following:*

(1) *The critical short-term, intermediate, and long-term agricultural issues in the State and the current and planned research programs and projects targeted to address such issues.*

(2) *The process established to consult with users of agricultural research regarding the identification of critical agricultural issues in the State and the development of research programs and projects targeted to address such issues.*

(3) *The efforts made to identify and collaborate with other colleges and universities within the State and other States that have unique capacity to address the identified agricultural issues in the State and current and emerging efforts (including regional efforts) to work with these other institutions and States.*

(4) *The manner in which research and extension, including research and extension activities funded other than through formula funds, will cooperate to address the critical issues in the State, including the activities to be carried out separately, the activities to be carried out sequentially, and the activities to be carried out jointly.*

(f) *RESEARCH PROTOCOLS.*—*The Secretary of Agriculture shall develop protocols to be used to evaluate the success of multi-State, multi-institutional, and multidisciplinary research activities and joint research and extension activities in addressing critical agricultural issues identified in the plans of work submitted under subsection (d). The Secretary shall develop the protocols in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board and land-grant colleges and universities.*

(g) *TREATMENT OF PLANS OF WORK FOR OTHER PURPOSES.*—*To the extent practicable, the Secretary shall consider plans of work submitted under subsection (d) to satisfy other appropriate Federal reporting requirements.*

\* \* \* \* \*

#### **SEC. 10. SHORT TITLE.**

*This Act may be cited as the "Hatch Act of 1887".*

## RESEARCH FACILITIES ACT

### [SECTION 1. SHORT TITLE.

[This Act may be cited as the "Research Facilities Act".

### [SEC. 2. DEFINITIONS.

[In this Act:

[(1) AGRICULTURAL RESEARCH FACILITY.—The term "agricultural research facility" means a proposed facility for research in food and agricultural sciences for which Federal funds are requested by a college, university, or nonprofit institution to assist in the construction, alteration, acquisition, modernization, renovation, or remodeling of the facility.

[(2) CONGRESSIONAL AGRICULTURE COMMITTEES.—The term "congressional agriculture committees" means the Committee on Appropriations and the Committee on Agriculture of the House of Representatives and the Committee on Appropriations and the Committee on Agriculture, Nutrition, and Forestry of the Senate.

[(3) FOOD AND AGRICULTURAL SCIENCES.—The term "food and agricultural sciences" means—

[(A) agriculture, including soil and water conservation and use, the use of organic materials to improve soil tilth and fertility, plant and animal production and protection, and plant and animal health;

[(B) the processing, distribution, marketing, and utilization of food and agricultural products;

[(C) forestry, including range management, production of forest and range products, multiple use of forests and rangelands, and urban forestry;

[(D) aquaculture (as defined in section 1404(3) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3103(3));

[(E) human nutrition;

[(F) production inputs, such as energy, to improve productivity; and

[(G) germ plasm collection and preservation.

[(4) SECRETARY.—The term "Secretary" means the Secretary of Agriculture.

[(5) TASK FORCE.—The term "task force" means the Strategic Planning Task Force established under section 4.

### [SEC. 3. REVIEW PROCESS.

[(a) SUBMISSION TO SECRETARY.—Each proposal for an agricultural research facility shall be submitted to the Secretary for review. The Secretary shall review the proposals in the order in which the proposals are received.

[(b) APPLICATION PROCESS.—In consultation with the congressional agriculture committees, the Secretary shall establish an application process for the submission of proposals for agricultural research facilities.

[(c) CRITERIA FOR APPROVAL.—

[(1) DETERMINATION BY SECRETARY.—With respect to each proposal for an agricultural research facility submitted under subsection (a), the Secretary shall determine whether the proposal meets the criteria set forth in paragraph (2).

**[(2) CRITERIA.]**—A proposal for an agricultural research facility shall meet the following criteria:

**[(A) NON-FEDERAL SHARE.]**—The proposal shall certify the availability of at least a 50 percent non-Federal share of the cost of the facility. The non-Federal share shall be paid in cash and may include funding from private sources or from units of State or local government.

**[(B) NONDUPLICATION OF FACILITIES.]**—The proposal shall demonstrate how the agricultural research facility would be complementary to, and not duplicative of, facilities of colleges, universities, and nonprofit institutions, and facilities of the Agricultural Research Service, within the State and region.

**[(C) NATIONAL RESEARCH PRIORITIES.]**—The proposal shall demonstrate how the agricultural research facility would serve—

[(i) 1 or more of the national research policies and priorities set forth in section 1402 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3101); and

[(ii) regional needs.]

**[(D) LONG-TERM SUPPORT.]**—The proposal shall demonstrate that the recipient college, university, or nonprofit institution has the ability and commitment to support the long-term, ongoing operating costs of—

[(i) the agricultural research facility after the facility is completed; and

[(ii) each program to be based at the facility.]

**[(d) EVALUATION OF PROPOSALS.]**—Not later than 90 days after receiving a proposal under subsection (a), the Secretary shall—

[(1) evaluate and assess the merits of the proposal, including the extent to which the proposal meets the criteria set forth in subsection (c); and

[(2) report to the congressional agriculture committees on the results of the evaluation and assessment.]

#### **[SEC. 4. TASK FORCE ON 10-YEAR STRATEGIC PLAN FOR AGRICULTURAL RESEARCH FACILITIES.]**

**[(a) ESTABLISHMENT.]**—Not later than 6 months after the date of enactment of the Federal Agriculture Improvement and Reform Act of 1996, the Secretary shall establish a task force, to be known as the “Strategic Planning Task Force”. The task force shall be comprised of 15 members.

**[(b) COMPOSITION.]**—The Secretary shall select the members of the task force from a list of individuals recommended by the Advisory Board established under section 1408 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3123). In submitting the list to the Secretary, the Board may recommend for selection individuals (including members of the Advisory Board) who have expertise in facilities development, modernization, construction, consolidation, and closure.

**[(c) DUTIES.]**—The task force shall review all currently operating agricultural research facilities constructed in whole or in part with Federal funds, and all planned agricultural research facilities proposed to be constructed with Federal funds, pursuant to criteria es-

tablished by the Secretary, to ensure that a comprehensive research capacity is maintained.

**[(d) 10-YEAR STRATEGIC PLAN.]**—Not later than 2 years after the task force is established, the task force shall prepare and submit to the Secretary and the congressional agriculture committees a 10-year strategic plan, reflecting both national and regional perspectives, for development, modernization, construction, consolidation, and closure of Federal agricultural research facilities and agricultural research facilities proposed to be constructed with Federal funds.

**[(e) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.]**

**[(1) PUBLIC MEETINGS.]**—All meetings of the task force shall be publicly announced in advance and shall be open to the public. Detailed minutes of meetings and other appropriate records of the activities of the task force shall be kept and made available to the public on request.

**[(2) EXEMPTION.]**—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to the task force.

**[(f) DEFINITION OF AGRICULTURAL RESEARCH FACILITY.]**—Notwithstanding section 2(1), in this section the term "agricultural research facility" means a facility for research in food and agricultural sciences.

**[SEC. 5. APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.]**

[The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to a panel or board created solely for the purpose of reviewing applications or proposals submitted under this Act.

**[SEC. 6. AUTHORIZATION OF APPROPRIATIONS.]**

**[(a) IN GENERAL.]**—Subject to subsection (b), there are authorized to be appropriated such sums as are necessary for fiscal years 1996 and 1997 for the study, plan, design, structure, and related costs of agricultural research facilities under this Act.

**[(b) ALLOWABLE ADMINISTRATIVE COSTS.]**—Not more than 3 percent of the funds made available for any project for an agricultural research facility shall be available for administration of the project.]

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## **FOOD, AGRICULTURE, CONSERVATION, AND TRADE ACT OF 1990**

\* \* \* \* \*

### **TITLE XIV—CONSERVATION**

\* \* \* \* \*

## **Subtitle G—Water Quality Research, Education, and Coordination**

### **SEC. 1481. SHORT TITLE, PURPOSE, DEFINITIONS, AND AUTHORIZATION OF APPROPRIATIONS.**

(a) \* \* \*

\* \* \* \* \*

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such sums as may be necessary for fiscal years 1991 through [1997] 2002 to carry out this subtitle.

\* \* \* \* \*

## **TITLE XVI—RESEARCH**

\* \* \* \* \*

## **Subtitle C—National Genetic Resources Program**

\* \* \* \* \*

### **SEC. 1635. DEFINITIONS AND AUTHORIZATION OF APPROPRIATIONS.**

(a) \* \* \*

(b) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such funds as may be necessary to carry out this subtitle for each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

## **[Subtitle D—National Agricultural Weather Information System]**

### **[SEC. 1637. SHORT TITLE AND PURPOSES.]**

[a] **SHORT TITLE.**—This subtitle may be cited as the “National Agricultural Weather Information System Act of 1990”.

[b] **PURPOSES.**—The purposes of this subtitle are—

[1] to provide a nationally coordinated agricultural weather information system, based on the participation of universities, State programs, Federal agencies, and the private weather consulting sector, and aimed at meeting the weather and climate information needs of agricultural producers;

[2] to facilitate the collection, organization, and dissemination of advisory weather and climate information relevant to agricultural producers, through the participation of the private sector and otherwise;

[3] to provide for research and education on agricultural weather and climate information, aimed at improving the quality and quantity of weather and climate information available to agricultural producers, including research on short-term

forecasts of thunderstorms and on extended weather forecasting techniques and models;

[(4) to encourage, where feasible, greater private sector participation in providing agricultural weather and climate information, to encourage private sector participation in educating and training farmers and others in the proper utilization of agricultural weather and climate information, and to strengthen their ability to provide site-specific weather forecasting for farmers and the agricultural sector in general; and

[(5) to ensure that the weather and climate data bases needed by the agricultural sector are of the highest scientific accuracy and thoroughly documented, and that such data bases are easily accessible for remote computer access.

#### **[SEC. 1638. AGRICULTURAL WEATHER OFFICE.**

##### **[(a) ESTABLISHMENT OF THE OFFICE AND ADMINISTRATION OF THE SYSTEM.—**

[(1) **ESTABLISHMENT REQUIRED.**—The Secretary of Agriculture shall establish in the Department of Agriculture an Agricultural Weather Office to plan and administer the National Agricultural Weather Information System. The system shall be comprised of the office established under this section and the activities of the State agricultural weather information systems described in section 1640.

[(2) **DIRECTOR.**—The Secretary shall appoint a Director to manage the activities of the Agricultural Weather Office and to advise the Secretary on scientific and programmatic coordination for climate, weather, and remote sensing.

[(b) **AUTHORITY.**—The Secretary, acting through the Office, may undertake the following activities to carry out this subtitle:

[(1) Enter into cooperative projects with the National Weather Service to—

[(A) support operational weather forecasting and observation useful in agriculture;

[(B) sponsor joint workshops to train agriculturalists about the optimum utilization of agricultural weather and climate data;

[(C) jointly develop improved computer models and computing capacity; and

[(D) enhance the quality and availability of weather and climate information needed by agriculturalists.

[(2) Obtain standardized weather observation data collected in near real time through State agricultural weather information systems.

[(3) Make, through the Cooperative State Research Service, competitive grants under subsection (c) for research in atmospheric sciences and climatology.

[(4) Make grants to eligible States under section 1640 to plan and administer State agricultural weather information systems.

[(5) Coordinate the activities of the Office with the weather and climate research activities of the Cooperative State Research Service, the National Academy of Sciences, the National Science Foundation Atmospheric Services Program, and the National Climate Program.

[(6) Encourage private sector participation in the National Agricultural Weather Information System through mutually beneficial cooperation with the private sector, particularly in generating weather and climatic data useful for site-specific agricultural weather forecasting.

**[(c) COMPETITIVE GRANTS PROGRAM.—**

[(1) GRANTS AUTHORIZED.—With funds allocated to carry out this subsection, the Secretary of Agriculture may make grants to State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations and corporations, and individuals to carry out research in all aspects of atmospheric sciences and climatology that can be shown to be important in both a basic and developmental way to understanding, forecasting, and delivering agricultural weather information.

[(2) COMPETITIVE BASIS.—Grants made under this subsection shall be made on a competitive basis.

[(d) PRIORITY.—In selecting among applications for grants under subsection (c), the Secretary shall give priority to proposals which emphasize—

[(1) techniques and processes that relate to weather-induced agricultural losses, and to improving the advisory information on weather extremes such as drought, floods, freezes, and storms well in advance of their actual occurrence;

[(2) the improvement of site-specific weather data collection and forecasting; or

[(3) the impact of weather on economic and environmental costs in agricultural production.

**[SEC. 1639. NATIONAL ADVISORY BOARD ON AGRICULTURAL WEATHER.]**

[(a) ESTABLISHMENT.—The Secretary of Agriculture shall establish the Advisory Board on Agricultural Weather (hereinafter referred to in this section as the "Board") to advise the Director of the Agricultural Weather Office with respect to carrying out this subtitle.

[(b) COMPOSITION.—The Board shall be composed of nine members, appointed by the Secretary in consultation with the Director of the National Weather Service. Two of the members shall be from each of the four regions of the cooperative extension service. Of the two members from each region, one shall be an agricultural producer and one shall be an agricultural or atmospheric scientist. At least two members of the Board shall be appointed from among individuals who are engaged in providing private meteorology services or consulting with a private meteorology firm.

[(c) CHAIRPERSON.—The Board shall elect a chairperson from among its members.

[(d) TERM.—Each Board member shall be appointed for a three-year term, except that to ensure that members of the Board serve staggered terms, the Secretary shall appoint three of the original members of the Board to appointments for one year, and three of the original members to appointments for two years.

[(e) MEETINGS.—The Board shall meet not less than twice annually.

[(f) COMPENSATION.—Members of the Board shall serve without compensation, but while away from their homes or regular places of business in the performance of services for the Board, members of the Board shall be allowed travel expenses, including a per diem allowance in lieu of subsistence, in the same manner as individuals employed in Government service are allowed travel expenses under section 5703 of title 5, United States Code.

[(g) FEDERAL ADVISORY COMMITTEE ACT.—Section 14(a)(2) of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply with respect to the Board.

#### [SEC. 1640. STATE AGRICULTURAL WEATHER INFORMATION SYSTEMS.

##### [(a) ADVISORY PROGRAM GRANTS.—

[(1) GRANTS REQUIRED.—With funds allocated to carry out this section, the Secretary of Agriculture shall make grants to not fewer than 10 eligible States to plan and administer, in cooperation with persons described in paragraph (2), advisory programs for State agricultural weather information systems.

[(2) PERSONS DESCRIBED.—The persons referred to in paragraph (1) are the Director of the Agricultural Weather Office, the Administrator of the Extension Service, the Administrator of the Cooperative State Research Service, and other persons as appropriate (such as the directors of the appropriate State agricultural experiment stations and State extension programs).

[(b) CONSULTATION.—For purposes of selecting among applications submitted by States for grants under this section, the Secretary shall take into consideration the recommendation of the Advisory Board on Agricultural Weather and consult with the Director.

[(c) ELIGIBILITY REQUIREMENTS.—To be eligible to receive a grant under this section, the chief executive officer of a State shall submit to the Secretary an application that contains—

[(1) assurances that the State will expend such grant to plan and administer a State agricultural weather system that will—

[(A) collect observational weather data throughout the State and provide such data to the National Weather Service and the Agricultural Weather Office;

[(B) develop methods for packaging information received from the national system for use by agricultural producers (with State Cooperative Extension Services and the private sector to serve as the primary conduit of agricultural weather forecasts and climatic information to producers); and

[(C) develop programs to educate agricultural producers on how to best use weather and climate information to improve management decisions; and

[(2) such other assurances and information as the Secretary may require by rule.

#### [SEC. 1641. FUNDING.

##### [(a) ALLOCATION OF FUNDS.—

[(1) COOPERATIVE WORK.—Not less than 15 percent and not more than 25 percent of the funds appropriated for a fiscal year to carry out this subtitle shall be used for cooperative

work with the National Weather Service entered into under section 1638(b)(1).

[(2) COMPETITIVE GRANTS PROGRAM.—Not less than 15 percent and not more than 25 percent of such funds shall be used by the Cooperative State Research Service for a competitive grants program under section 1638(c).]

[(3) WEATHER INFORMATION SYSTEMS.—Not less than 25 percent and not more than 35 percent of such funds shall be divided equally between the participating States selected for that fiscal year under section 1640.]

[(4) OTHER PURPOSES.—The remaining funds shall be allocated for use by the Agricultural Weather Office and the Extension Service in carrying out generally the provisions of this subtitle.]

[(b) LIMITATIONS ON USE OF FUNDS.—Funds provided under the authority of this subtitle shall not be used for the construction of facilities. Each State or agency receiving funds shall not use more than 30 percent of such funds for equipment purchases. Any use of the funds in facilitating the distribution of agricultural and climate information to producers shall be done with consideration for the role that the private meteorological sector can play in such information delivery.]

[(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$5,000,000 to carry out this subtitle for each of the fiscal years 1991 through 1997.]

## **Subtitle D—National Agricultural Weather Information System**

### **SEC. 1637. SHORT TITLE; PURPOSES.**

(a) **SHORT TITLE.**—This subtitle may be cited as the “National Agricultural Weather Information System Act of 1997”.

(b) **PURPOSES.**—The purposes of this subtitle are—

(1) to facilitate the management and coordination of a national agricultural weather and climate station network for Federal and State agencies, colleges and universities, and the private sector;

(2) to ensure that timely and accurate information is obtained and disseminated; and

(3) to aid research and education that requires a comprehensive agricultural weather and climate database.

### **SEC. 1638. AGRICULTURAL WEATHER SYSTEM.**

(a) **ESTABLISHMENT.**—The Secretary of Agriculture may establish the National Agricultural Weather Information System (referred to in this subtitle as the “System”). The System shall be comprised of the operational and research activities of the Federal, State, and regional agricultural weather information systems.

(b) **AUTHORITY.**—Notwithstanding chapter 63 of title 31, United States Code, to carry out this subtitle, the Secretary may—

(1) enter into contracts, grants, cooperative agreements and interagency agreements without regard to competitive requirements, except as otherwise provided in this subtitle, with other Federal and State agencies to—

(A) support operational weather and climate data observations, analysis, and derived products;

(B) preserve historical data records for research studies useful in agriculture;

(C) jointly develop improved computer models and computing capacity for storage, retrieval, dissemination and analysis of agricultural weather and climate information;

(D) enhance the quality and availability of weather and climate information needed by the private sector for value-added products and agriculturists for decisionmaking; and

(E) sponsor joint programs to train private sector meteorologists and agriculturists about the optimum use of agricultural weather and climate data;

(2) obtain standardized weather observation data collected in near real time through regional and State agricultural weather information systems;

(3) coordinate the activities of the Chief Meteorologist of the Department of Agriculture and weather and climate research activities of the Department of Agriculture with other Federal agencies and the private sector;

(4) make grants to plan and administer State and regional agricultural weather information systems, including research in atmospheric sciences and climatology;

(5) encourage private sector participation in the System through cooperation with the private sector, including cooperation in the generation of weather and climate data useful for site-specific agricultural weather forecasting; and

(6) make competitive grants to carry out research in all aspects of atmospheric sciences and climatology regarding the collection, retention, and dissemination of agricultural weather and climate observations and information, with priority given to proposals that emphasize—

(A) techniques and processes that relate to—

(i) weather- or climate-induced agricultural losses; and

(ii) improvement of information on weather and climate extremes (such as drought, floods, freeze, and storms) well in advance of their occurrence;

(B) the improvement of site-specific weather data collection and forecasting;

(C) the impact of weather on economic and environmental costs in agricultural production; or

(D) the preservation and management of the ecosystem.

#### **SEC. 1639. FUNDING AND ADMINISTRATION.**

##### **(a) USE OF FUNDS.—**

(1) **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION WORK.**—Not more than  $\frac{2}{3}$  of the funds made available for a fiscal year to carry out this subtitle shall be used for work with the National Oceanic and Atmospheric Administration.

(2) **ADMINISTRATIVE COSTS.**—The Secretary of Agriculture may retain for administration of the System up to four percent of the amounts made available to carry out this subtitle, notwithstanding the availability of any appropriation for administrative expenses to carry out this subtitle.

(3) **LIMITATIONS.**—

(A) **BUILDINGS OR FACILITIES.**—*Funds made available to carry out this subtitle shall not be used for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.*

(B) **EQUIPMENT PURCHASES.**—*Of funds made available under a grant award under this subtitle, a grantee may use for equipment purchases not more than the lesser of—*

(i) \$15,000; or

(ii)  $\frac{1}{3}$  of the amount of the grant award.

(b) **APPLICABILITY OF OTHER LAWS.**—*The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to a panel or board created for the purpose of reviewing applications or proposals submitted for grants under section 1638.*

**SEC. 1640. AUTHORIZATION OF APPROPRIATIONS.**

*There is authorized to be appropriated to carry out this subtitle \$15,000,000 for each of the fiscal years 1998 through 2002.*

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## **Subtitle H—Miscellaneous Research Provisions**

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**[SEC. 1670. LIVESTOCK PRODUCT SAFETY AND INSPECTION PROGRAM.]**

[(a) **ESTABLISHMENT.**—The Assistant Secretary for Science and Education, acting through the Cooperative State Research Service special grants program, may provide assistance to eligible entities to encourage and assist efforts made by research institutions to improve the efficiency and effectiveness of safety and inspection systems for livestock products.]

[(b) **ELIGIBLE ENTITIES.**—To be eligible to receive assistance under this section an entity shall be a land-grant college or university or any other college or university which demonstrates capability in the agriculture sciences, an individual research institution, or a consortia of such institutions.]

[(c) **CONTRIBUTION BY ENTITY.**—

[(1) **REQUIREMENT.**—To be eligible to receive assistance under this section, an entity shall agree that such entity will, with respect to the costs to be incurred by the entity in conducting the research for which the assistance is provided, make available (directly or through donations) non-Federal contributions toward such costs in an amount equal to 50 percent of such costs.]

[(2) **NON-FEDERAL CONTRIBUTIONS.**—Non-Federal contributions required under paragraph (1) may be in cash or in kind, fairly evaluated, including plant, equipment, or services. Amounts provided by the Federal Government, or services assisted or subsidized to any significant extent by the Federal Government, may not be included in determining the amount of such non-Federal contributions.]

**[(d) ADMINISTRATION.]**—In providing assistance under this section, the Assistant Secretary for Science and Education shall to the extent practicable ensure that the amount of such assistance is provided equally to eligible entities representing the beef, pork, lamb, poultry, and aquaculture industries.

**[(e) AUTHORIZATION OF APPROPRIATIONS.]**—There are authorized to be appropriated to carry out this section, such sums as necessary for each of the fiscal years 1991 through 1997.

**[SEC. 1671. PLANT GENOME MAPPING PROGRAM.]**

**[(a) PROGRAM REQUIRED.]**—The Secretary of Agriculture (hereinafter in this section referred to as the “Secretary”) shall conduct a research program for the purpose of—

- [(1) supporting basic and applied research and technology development in the area of plant genome structure and function;]**
- [(2) providing United States leadership in biotechnology; and]**
- [(3) providing crop varieties that may be cultivated profitably without negatively impacting the environment.]**

**[SEC. 1671. AGRICULTURAL GENOME INITIATIVE.]**

**(a) PROGRAM REQUIRED.]**—The Secretary of Agriculture shall conduct a research initiative for the purpose of—

- (1) supporting basic and applied research and technology development in the area of genome structure and function in support of agriculturally important species, with a particular focus on research projects that will yield scientifically important results that will enhance the usefulness of many agriculturally important species;**
- (2) studying and mapping agriculturally significant genes to achieve sustainable and secure agricultural production;**
- (3) ensuring that current gaps in existing agricultural genetics knowledge are filled;**
- (4) identifying and developing a functional understanding of genes responsible for economically important traits in agriculturally important species, including emerging plant and animal diseases causing economic hardship;**
- (5) ensuring the future genetic improvement of agriculturally important species;**
- (6) supporting the preservation of diverse germplasm; and**
- (7) ensuring the preservation of biodiversity to maintain access to genes that may be of importance in the future.**

**(b) COMPETITIVE GRANTS.]**—The Secretary may make competitive grants, for periods not to exceed five years, to State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals for research projects in the research areas identified in subsection [(c)] (a).

**(c) RESEARCH AREAS.]**—Grants available under subsection (b) shall be awarded in the following research areas:

- [(1) Construction of plant genome maps.**
- [(2) Identification, characterization, transfer, and expression of genes of agricultural importance.**
- [(3) Technology development in the areas of plant genome mapping, sequencing, gene transfer, and data management.**

[(4) Research on microorganisms associated with plants, such as plant pathogens and plant symbionts.

[(d) PLAN FOR MAKING GRANTS.—Not later than 90 days after the date of the enactment of this Act, the Secretary shall submit to the Congress a detailed plan for awarding grants under this section.]

(c) *GRANT TYPES AND PROCESS; PROHIBITION ON CONSTRUCTION.*—Paragraphs (6), (7), and (11) of subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) shall apply with respect to the making of grants under this section.

(d) *MATCHING OF FUNDS.*—

(1) *GENERAL REQUIREMENT.*—If a grant under this section is to the particular benefit of a specific agricultural commodity, the Secretary shall require the recipient of the grant to provide funds or in-kind support to match the amount of funds provided by the Secretary in the grant.

(2) *WAIVER.*—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a research project if the Secretary determines that—

(A) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or

(B) the project involves a minor commodity, deals with scientifically important research, and the grant recipient would be unable to satisfy the matching funds requirement.

\* \* \* \* \*

(g) *AUTHORIZATIONS OF APPROPRIATIONS.*—There are authorized to be appropriated for [fiscal years 1996 and 1997] fiscal years 1998 through 2002 such sums as may be necessary to carry out this section.

#### **[SEC. 1672. SPECIALIZED RESEARCH PROGRAMS.]**

(a) *BROWN CITRUS APHID AND CITRUS TRISTEZA VIRUS.*—

[(1) *RESEARCH GRANTS AUTHORIZED.*—The Secretary of Agriculture may make competitive grants available to support research for the purpose of—

[(A) developing methods to eradicate the brown citrus aphid and the citrus tristeza virus from citrus crops grown in the United States; or

[(B) adapting citrus crops grown in the United States to the brown citrus aphid and the citrus tristeza virus.

[(2) *METHOD OF PROVIDING GRANTS.*—Grants authorized under this subsection shall be made in the same manner, and shall be subject to the same conditions, as provided for competitive grants under the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i).

[(3) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated to carry out this subsection \$3,000,000 for fiscal year 1997.

(b) *ETHANOL RESEARCH.*—In order to further carry on and enhance needed ethanol research, the facility of the Agricultural Research Service located at Peoria, Illinois (authorized by section 202 of the Agricultural Adjustment Act of 1938 (7 U.S.C. 1292)), may enter into cooperative agreements, contracts, and the exchange of

scientific information with the Department of Energy in the area of ethanol research. Such facility shall hereafter be referred to as the National Center for Agricultural Utilization Research, Agricultural Research Service, United States Department of Agriculture.

[(c) AFLATOXIN RESEARCH.—The Secretary of Agriculture shall conduct a research program for the purpose of determining the presence of aflatoxin in the food and feed chains. The research required under this subsection shall include research in the following areas:

- [(1) The examination of agricultural commodities, products, and feeds for the presence and quantity of aflatoxin.
- [(2) The examination of human populations to assess the exposure level to aflatoxin.
- [(3) The examination of safe levels of aflatoxin in the food and feed chains.
- [(4) The development and assessment of control methods for aflatoxin, including methods to handle, store, detoxify, and dispose of aflatoxin-contaminated agricultural commodities, products, and feeds.
- [(5) The development of effective methods of controlling the aflatoxin contamination of agricultural products in international trade when the level of such contamination exceeds an acceptable level.
- [(6) The development of plants resistant to aflatoxin contamination.
- [(7) The improvement of sampling and analysis methods for aflatoxin.
- [(8) The effect of aflatoxin on animal disease through immunosuppression and interaction with other disease agents.
- [(9) The economic consequences of aflatoxin contamination.

[(d) MESQUITE RESEARCH.—

[(1) RESEARCH REQUIRED.—The Secretary of Agriculture shall conduct a research program for the purpose of developing enhanced production methods and commercial uses of mesquite.

[(2) COMPETITIVE GRANTS.—The Secretary shall make competitive grants, for periods not to exceed 5 years, to a State agricultural experiment station, a college or university, or a consortium of such entities, for a research project in the research areas identified in paragraph (3).

[(3) RESEARCH AREAS.—A grant available under paragraph (2) shall be awarded to an applicant to conduct research in—

[(A) the development of techniques to produce, from small-diameter, short-length, or otherwise irregular mesquite logs, solid-wood products useful as flooring, furniture parts, turning blanks, and such other uses as may have potential economic value;

[(B) the development of management techniques designed to improve stands for quality lumber production from mesquite; and

[(C) such other methods of production, harvesting, processing, and marketing that are designed to provide viable markets for mesquite and lead to the commercialization of mesquite as a cash crop.

[(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$100,000 for each of the fiscal years 1991 through 1997 to carry out this subsection.

[(e) PRICKLY PEAR RESEARCH.—

[(1) RESEARCH REQUIRED.—The Secretary of Agriculture shall conduct a research program for the purpose of investigating enhanced genetic selection and processing techniques of prickly pears.

[(2) COMPETITIVE GRANTS.—The Secretary shall make competitive grants, for periods not to exceed 5 years, to a State agricultural experiment station, a college or university, or a consortium of such entities, for research projects in the research areas identified in paragraph (3).

[(3) RESEARCH AREAS.—A grant available under paragraph (2) shall be awarded to an applicant to conduct research—

[(A) to investigate, through genetic selection, the development of varieties of prickly pear with improved growth, freeze tolerance, and harvest characteristics;

[(B) to develop techniques to produce and process prickly pear as a food source; and

[(C) to continue to investigate the nutritional value and health benefits of prickly pears.

[(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$100,000 for each of the fiscal years 1991 through 1997 to carry out this subsection.

[(f) DEER TICK ECOLOGY AND RELATED RESEARCH.—There are authorized to be appropriated \$250,000 for each of the fiscal years 1991 through 1997 to be used by the Secretary of Agriculture, acting through the Cooperative State Research Service, to make competitive grants to assist research in the field of population ecology of deer ticks and other insects and pests which transmit Lyme disease.

[(g) ADMINISTRATIVE PROVISIONS.—

[(1) PEER REVIEW.—Research funded under this section shall be subject to peer review at such times as the Secretary considers necessary for the purpose of reviewing the progress and efficacy of the research and the justification and need for continued funding.

[(2) LIMITATION ON USE OF FUNDS.—Funds provided under this section may not be used for the planning, repair, rehabilitation, acquisition, or construction of a building or facility.

[(3) GENERAL ELIGIBILITY.—Unless otherwise specified in this section, State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals shall be eligible to participate in the programs established by this section.]

**SEC. 1672. HIGH-PRIORITY RESEARCH AND EXTENSION INITIATIVES.**

(a) COMPETITIVE SPECIALIZED RESEARCH AND EXTENSION GRANTS AUTHORIZED.—*The Secretary of Agriculture, in consultation with the National Agricultural Research, Education, Extension, and Economics Advisory Board, may make competitive grants to support research and extension activities in the high-priority research and extension areas specified in subsection (e).*

(b) GRANT TYPES AND PROCESS; PROHIBITION ON CONSTRUCTION.—Paragraphs (6), (7), and (11) of subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) shall apply with respect to the making of grants under this section.

(c) MATCHING FUNDS REQUIRED.—

(1) IN GENERAL.—The Secretary shall require the recipient of a grant under this section to provide funds or in-kind support from non-Federal sources in an amount at least equal to the amount provided by the Federal Government.

(2) WAIVER AUTHORITY.—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a research project if the Secretary determines that—

(A) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or

(B) the project involves a minor commodity, deals with scientifically important research, and the grant recipient would be unable to satisfy the matching funds requirement.

(d) PARTNERSHIPS ENCOURAGED.—Following the completion of a peer review process for grant proposals received under this section, the Secretary may give priority to those grant proposals found to be scientifically meritorious that involve the cooperation of multiple institutions.

(e) HIGH-PRIORITY RESEARCH AND EXTENSION AREAS.—

(1) BROWN CITRUS APHID AND CITRUS TRISTEZA VIRUS, RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of—

(A) developing methods to control or eradicate the brown citrus aphid and the citrus tristeza virus from citrus crops grown in the United States; or

(B) adapting citrus crops grown in the United States to the brown citrus aphid and the citrus tristeza virus.

(2) ETHANOL RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of carrying on or enhancing research on ethanol derived from agricultural crops as an alternative fuel source.

(3) AFLATOXIN RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of identifying and controlling aflatoxin in the food and feed chains.

(4) MESQUITE RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing enhanced production methods and commercial uses of mesquite.

(5) PRICKLY PEAR RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating enhanced genetic selection and processing techniques of prickly pears.

(6) DEER TICK ECOLOGY RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of studying the population ecology of deer ticks and other insects and pests which transmit Lyme disease.

(7) **RED MEAT SAFETY RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of developing—

- (A) intervention strategies that reduce microbial contamination on carcass surfaces;
- (B) microbiological mapping of carcass surfaces; and
- (C) model hazard analysis and critical control point plans.

(8) **GRAIN SORGHUM ERGOT RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of developing techniques for the eradication of sorghum ergot.

(9) **ANIMAL WASTE AND ODOR MANAGEMENT RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of—

- (A) identifying, evaluating, and demonstrating innovative technologies for animal waste management and odor control; and
- (B) conducting information workshops to disseminate the results of such research.

(10) **FIRE ANT RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of control, management, and eradication of fire ants.

(11) **WHEAT SCAB RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section to a consortium of land-grant colleges and universities for the purpose of understanding and combating diseases of wheat and barley caused by *Fusarium graminearum* and related fungi (commonly known as wheat scab).

(12) **PEANUT MARKET ENHANCEMENT RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of evaluating the economics of applying innovative technologies for peanut processing in a commercial environment.

(13) **DAIRY FINANCIAL RISK MANAGEMENT RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of providing research, development, or education materials, information, and outreach programs regarding risk management strategies for dairy producers and for dairy cooperatives and other processors and marketers of milk.

(14) **COTTON RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of improving pest management, fiber quality enhancement, economic assessment, textile production, and optimized production systems for short staple cotton.

(15) **METHYL BROMIDE RESEARCH AND EXTENSION.**—Research and extension grants may be made under this section for the purpose of—

- (A) developing and evaluating chemical and nonchemical alternatives, and use and emission reduction strategies, for pre-planting and post-harvest uses of methyl bromide; and
- (B) transferring the results of such research for agricultural producer use.

(16) WATER QUALITY AND AQUATIC ECOSYSTEM RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating the impact on aquatic food webs, especially commercially important aquatic species and their habitats, of microorganisms of the genus *Pfiesteria* and other microorganisms that are a threat to human or animal health.

(17) POTATO RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing and evaluating new strains of potatoes which are resistant to blight and other diseases, as well as insects. Emphasis may be placed on developing potato varieties that lend themselves to innovative marketing approaches.

(18) WOOD UTILIZATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of developing new uses for wood from underutilized tree species as well as investigating methods of modifying wood and wood fibers to produce better building materials.

(19) LOW-BUSH BLUEBERRY RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of evaluating methods of propagating and developing low-bush blueberry as a marketable crop.

(20) FORMOSAN TERMITE ERADICATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of—

(A) conducting research for the control, management, and possible eradication of Formosan termites in the United States; and

(B) collecting data on the effectiveness of research projects conducted under this paragraph.

(21) SWINE WASTE MANAGEMENT AND ODOR CONTROL RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of investigating the microbiology of swine waste and developing improved methods to effectively manage air and water quality in animal husbandry.

(22) WETLANDS UTILIZATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of better utilizing wetlands in diverse ways to provide various economic, agricultural, and environmental benefits.

(23) WILD PAMPAS GRASS CONTROL AND ERADICATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of control, management, and eradication of wild pampas grass.

(24) PATHOGEN DETECTION AND LIMITATION RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of identifying advanced detection and processing methods to limit the presence of pathogens, including hepatitis A and *E. coli* 0157:H7, in domestic and imported foods.

(25) FINANCIAL RISK MANAGEMENT RESEARCH AND EXTENSION.—Research and extension grants may be made under this section for the purpose of providing research, development, or

*education materials, information, and outreach programs regarding financial risk management strategies for agricultural producers and for cooperatives and other processors and marketers of any agricultural commodity.*

(26) *ORNAMENTAL TROPICAL FISH RESEARCH AND EXTENSION.*—*Research and extension grants may be made under this section for the purpose of meeting the needs of commercial producers of ornamental tropical fish and aquatic plants for improvements in the areas of fish reproduction, health, nutrition, predator control, water use, water quality control, and farming technology.*

(27) *SHEEP SCRAPIE RESEARCH AND EXTENSION.*—*Research and extension grants may be made under this section for the purpose of investigating the genetic aspects of scrapie in sheep.*

(28) *ANIMAL WASTE MANAGEMENT AT RURAL/URBAN INTERFACES.*—*Research and extension grants may be made under this section for the purpose of identifying, evaluating, and demonstrating innovative technologies to be used for animal waste management (including odor control) in rural areas adjacent to urban or suburban areas in connection with waste management activities undertaken in urban or suburban areas.*

(29) *GYPSY MOTH RESEARCH AND EXTENSION.*—*Research and extension grants may be made under this section for the purpose of developing biological control, management, and eradication methods against nonnative insects, including Lymantria dispar (commonly known as the Gypsy Moth), that contribute to significant agricultural, economical, or environmental harm.*

(30) *DAIRY EFFICIENCY, PROFITABILITY, AND COMPETITIVENESS RESEARCH AND EXTENSION.*—*Research and extension grants may be made under this section for the purpose of improving the efficiency, profitability, and competitiveness of dairy production on farms that are heavily dependent on manufacturing uses of milk.*

(31) *ANIMAL FEED RESEARCH AND EXTENSION.*—*Research and extension grants may be made under this section for the purpose of maximizing nutrition management for livestock, while limiting risks, such as mineral bypass, associated with livestock feeding practices.*

(32) *FORESTRY RESEARCH AND EXTENSION.*—*Research and extension grants may be made under this section to develop and distribute new, high-quality, science-based information for the purpose of improving the long-term productivity of forest resources and contributing to forest-based economic development by addressing such issues as forest land use policies, multiple-use forest management, including wildlife habitat development, improved forest regeneration systems, and timber supply, and improved development, manufacturing, and marketing of forest products.*

(f) *AUTHORIZATION OF APPROPRIATIONS.*—*There are authorized to be appropriated for each of the fiscal years 1998 through 2002 such sums as may be necessary to make grants under this section in each of the high-priority research and extension areas specified in subsection (e).*

(g) *USE OF TASK FORCES.*—

(1) **ESTABLISHMENT.**—To facilitate the making of research and extension grants under this section in a high-priority research and extension area specified in subsection (e), the Secretary may appoint a task force to make recommendations to the Secretary.

(2) **LIMITATION ON COSTS.**—The Secretary may not incur costs in excess of \$1,000 in any fiscal year in connection with each task force established under this subsection.

(3) **APPLICATION OF OTHER LAWS.**—The Federal Advisory Committee Act (5 U.S.C. App.) and title XVIII of the Food and Agriculture Act of 1977 (7 U.S.C. 2281 et seq.) shall not apply to a task force established under this subsection.

#### **SEC. 1672A. ORGANIC AGRICULTURE RESEARCH AND EXTENSION INITIATIVE.**

(a) **COMPETITIVE SPECIALIZED RESEARCH AND EXTENSION GRANTS AUTHORIZED.**—The Secretary of Agriculture, in consultation with the National Agricultural Research, Education, Extension, and Economics Advisory Board, may make competitive grants to support research and extension activities regarding organically grown and processed agricultural commodities for the purpose of—

(1) facilitating the development of organic agriculture production and processing methods;

(2) evaluating the potential economic benefits to producers and processors who use organic methods; and

(3) exploring international trade opportunities for organically grown and processed agricultural commodities.

(b) **GRANT TYPES AND PROCESS, PROHIBITION ON CONSTRUCTION.**—Paragraphs (6), (7), and (11) of subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i) shall apply with respect to the making of grants under this section.

(c) **MATCHING FUNDS REQUIRED.**—

(1) **IN GENERAL.**—The Secretary shall require the recipient of a grant under this section to provide funds or in-kind support from non-Federal sources in an amount at least equal to the amount provided by the Federal Government.

(2) **WAIVER AUTHORITY.**—The Secretary may waive the matching funds requirement specified in paragraph (1) with respect to a research project if the Secretary determines that—

(A) the results of the project, while of particular benefit to a specified agricultural commodity, are likely to be applicable to agricultural commodities generally; or

(B) the project involves a minor commodity, deals with scientifically important research, and grant recipient would be unable to satisfy the matching funds requirement.

(d) **PARTNERSHIPS ENCOURAGED.**—Following the completion of a peer review process for grant proposals received under this section, the Secretary may give priority to those grant proposals found to be scientifically meritorious that involved the cooperation of multiple institutions.

(e) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated for each of the fiscal years 1998 through 2002 such sums as may be necessary to make grants under this section.

\* \* \* \* \*

**SEC. 1673. AGRICULTURAL TELECOMMUNICATIONS PROGRAM.**

(a) \* \* \*

\* \* \* \* \*

(h) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of implementing the program established under this section, there are hereby authorized to be appropriated not more than \$12,000,000 for each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

**SEC. 1680. ASSISTIVE TECHNOLOGY PROGRAM FOR FARMERS WITH DISABILITIES.**

(a) SPECIAL DEMONSTRATION GRANTS.—

(1) \* \* \*

\* \* \* \* \*

(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection—

(A) not less than \$3,000,000 for each of the fiscal years 1991 and 1992; and

(B) not less than \$5,000,000 for each of the fiscal years 1993 through [1997] 2002.

(b) NATIONAL GRANT FOR TECHNICAL ASSISTANCE, TRAINING AND DISSEMINATION.—

(1) \* \* \*

(2) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$1,000,000 to carry out this subsection for each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

**TITLE XXIII—RURAL DEVELOPMENT**

\* \* \* \* \*

**Subtitle H—Miscellaneous Provisions****SEC. 2381. NATIONAL RURAL INFORMATION CENTER CLEARING-HOUSE.**

(a) \* \* \*

\* \* \* \* \*

(e) LIMITATION ON AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated \$500,000 for each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

**COMPETITIVE, SPECIAL, AND FACILITIES RESEARCH GRANT ACT****SEC. 2. COMPETITIVE, SPECIAL, AND FACILITIES RESEARCH GRANTS.**

(a) ESTABLISHMENT OF GRANT PROGRAM.—(1) In order to promote research in food, agriculture, and related areas, a research grants program is hereby established in the Department of Agriculture.

(2) SHORT TITLE.—This section may be cited as the "Competitive, Special, and Facilities Research Grant Act".

(b) COMPETITIVE GRANTS.—(1) \* \* \*

\* \* \* \* \*

(8) MATCHING FUNDS.—(A) \* \* \*

(B) In the case of grants under paragraph (3)(D), the amount provided under this subsection may not exceed 50 percent of the cost of the special research equipment or other equipment acquired. *The Secretary may waive all or a portion of the matching requirement under this subparagraph in the case of a smaller college or university (as described in subsection (c)(2)(C)(ii) of section 793 of the Federal Agriculture Improvement and Reform Act of 1996 (7 U.S.C. 2204f)) if the equipment to be acquired costs not more than \$25,000 and has multiple uses within a single research project or is usable in more than one research project.*

\* \* \* \* \*

(10) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection \$150,000,000 for fiscal year 1991, \$275,000,000 for fiscal year 1992, \$350,000,000 for fiscal year 1993, \$400,000,000 for fiscal year 1994, and \$500,000,000 for each of fiscal years 1995 through [1997] 2002, of which each fiscal year—

(A) \* \* \*

\* \* \* \* \*

## FOREST AND RANGELAND RENEWABLE RESOURCES RESEARCH ACT OF 1978

[SEC. 2. (a)(1) Congress finds that scientific discoveries and technological advances must be made and applied to support the protection, management, and utilization of the Nation's renewable resources. It is the purpose of this Act to authorize the Secretary of Agriculture (hereinafter in this Act referred to as the "Secretary") to implement a comprehensive program of forest and rangeland renewable resources research and dissemination of the findings of such research.

[(2) Congress further finds that the forest and rangeland renewable resources of the world are threatened by deforestation due to conversion to agriculture of lands better suited to other uses, overgrazing, over-harvesting, and other causes that pose a direct adverse threat to people, the global environment, and the world economy.]

### **SEC. 2. FINDINGS AND PURPOSE.**

(a) **FINDINGS.**—Congress finds the following:

(1) *Forests and rangelands, and the resources of forests and rangelands, are of strategic economic and ecological importance to the United States, and the Federal Government has an important and substantial role in ensuring the continued health, productivity, and sustainability of the Nation's forests and rangelands.*

(2) *Over 75 percent of the productive commercial forest land in the United States is in private ownership, with some 60 per-*

cent owned by small nonindustrial private owners. These 10,000,000 nonindustrial private owners are critical to providing both commodity and noncommodity values to the citizens of the United States.

(3) The National Forest System manages only 17 percent of the Nation's commercial timberlands, with over half of the standing softwoods inventory located on those lands. Dramatic changes in Federal agency policy during the early 1990's have significantly curtailed the management of this vast timber resource, causing abrupt shifts in the supply of timber from public to private ownership. As a result of these shifts in supply, some 60 percent of total wood production in the United States is now coming from private forest lands in the southern United States.

(4) At the same time that pressures are building for the removal of even more land from commercial production, the Federal Government is significantly reducing its commitment to productivity-related research regarding forests and rangelands, which is critically needed by the private sector for the sustained management of remaining available timber and forage resources for the benefit of all species.

(5) Uncertainty over the availability of the United States timber supply, increasing regulatory burdens, and the lack of Federal Government support for research is causing domestic wood and paper producers to move outside the United States to find reliable sources of wood supplies, which in turn results in a worsening of the United States trade balance, the loss of employment and infrastructure investments, and an increased risk of infestations of exotic pests and diseases from imported wood products.

(6) Wood and paper producers in the United States are being challenged not only by shifts in Government policy, but also by international competition from tropical countries where growth rates of trees far exceed those in the United States. Wood production per acre will need to quadruple from 1996 levels for the United States forestry sector to remain internationally competitive on an ever decreasing forest land base.

(7) Better and more frequent forest inventorying and analysis is necessary to identify productivity-related forestry research needs and to provide forest managers with the current data necessary to make timely and effective management decisions.

\* \* \* \* \*

#### RESEARCH AUTHORIZATION

SEC. 3. (a) \* \* \*

\* \* \* \* \*

[(d) The Secretary is authorized to conduct, support, and cooperate in studies and other activities the Secretary deems necessary to—

[(1) evaluate renewable resource management problems associated with urban-forest interface;

[(2) assess effects of changes in Federal revenue codes on private forest management and investment; and

[(3) develop improved delivery systems for information and technical assistance provided to private landowners.]

(d) **HIGH PRIORITY FORESTRY AND RANGELANDS RESEARCH AND EDUCATION.**—The Secretary may conduct, support, and cooperate in forestry and rangelands research and education that is of the highest priority to the United States and to users of public and private forest lands and rangelands in the United States. Such research and education priorities include the following:

- (1) The biology of forest organisms and rangeland organisms.
- (2) Functional characteristics and cost-effective management of forest and rangeland ecosystems.
- (3) Interactions between humans and forests and rangelands.
- (4) Wood and forage as a raw material.
- (5) International trade, competition, and cooperation.

(e) **FOREST INVENTORY AND ANALYSIS.**—

(1) **PROGRAM REQUIRED.**—In compliance with existing statutory authority, the Secretary shall establish a program to inventory and analyze, in a timely manner, public and private forests and their resources in the United States.

(2) **ANNUAL STATE INVENTORY.**—Not later than the end of each full fiscal year beginning after the date of the enactment of this subsection, the Secretary shall prepare for each State, in cooperation with the State forester for the State, an inventory of forests and their resources in the State. For purposes of preparing the inventory for a State, the Secretary shall measure annually 20 percent of all sample plots that are included in the inventory program for that State. Upon completion of the inventory for a year, the Secretary shall make available to the public a compilation of all data collected for that year from measurements of sample plots as well as any analysis made of such samples.

(3) **FIVE-YEAR REPORTS.**—At intervals not greater than every five full fiscal years after the date of the enactment of this subsection, the Secretary shall prepare, publish, and make available to the public a report, prepared in cooperation with State foresters, that—

(A) contains a description of each State inventory of forests and their resources, incorporating all sample plot measurements conducted during the five years covered by the report;

(B) displays and analyzes on a nationwide basis the results of the annual reports required by paragraph (2); and

(C) contains an analysis of forest health conditions and trends over the previous two decades, with an emphasis on such conditions and trends during the period subsequent to the immediately preceding report under this paragraph.

(4) **NATIONAL STANDARDS AND DEFINITIONS.**—To ensure uniform and consistent data collection for all public and private forest ownerships and each State, the Secretary shall develop, in consultation with State foresters and Federal land management agencies not under the jurisdiction of the Secretary, and publish national standards and definitions to be applied in inventorying and analyzing forests and their resources under this subsection. The standards shall include a core set of vari-

ables to be measured on all sample plots under paragraph (2) and a standard set of tables to be included in the reports under paragraph (3).

(5) **PROTECTION FOR PRIVATE PROPERTY RIGHTS.**—The Secretary shall obtain written authorization from property owners prior to collecting data from sample plots located on private property pursuant to paragraphs (2) and (3).

(6) **STRATEGIC PLAN.**—Not later than 180 days after the date of the enactment of this subsection, the Secretary shall prepare and submit to Congress a strategic plan to implement and carry out this subsection, including the annual updates required by paragraph (2) and the reports required by paragraph (3), that shall describe in detail—

(A) the financial resources required to implement and carry out this subsection, including the identification of any resources required in excess of the amounts provided for forest inventorying and analysis in recent appropriations Acts;

(B) the personnel necessary to implement and carry out this subsection, including any personnel in addition to personnel currently performing inventorying and analysis functions;

(C) the organization and procedures necessary to implement and carry out this subsection, including proposed coordination with Federal land management agencies and State foresters;

(D) the schedules for annual sample plot measurements in each State inventory required by paragraph (2) within the first five-year interval after the date of the enactment of this subsection;

(E) the core set of variables to be measured in each sample plot under paragraph (2) and the standard set of tables to be used in each State and national report under paragraph (3); and

(F) the process for employing, in coordination with the Department of Energy and the National Aeronautics and Space Administration, remote sensing, global positioning systems, and other advanced technologies to carry out this subsection, and the subsequent use of such technologies.

\* \* \* \* \*

#### [COMPETITIVE RESEARCH GRANTS]

##### [SEC. 5.]

##### **SEC. 5. FORESTRY AND RANGELANDS COMPETITIVE RESEARCH GRANTS.**

(a) **COMPETITIVE GRANT AUTHORITY.**—In addition to any grants made under other laws, the Secretary is authorized to make competitive grants that will further research activities authorized by this Act to Federal, State, and other governmental agencies, public or private agencies, institutions, universities, and organizations, and businesses and individuals in the United States. In making these grants, the Secretary shall emphasize basic and applied research activities that are important to achieving the purposes of

this Act, and shall obtain, through review by qualified scientists and other methods, participation in research activities by scientists throughout the United States who have expertise in matters related to forest and rangeland renewable resources. Grants under this section shall be made at the discretion of the Secretary under whatever conditions the Secretary may prescribe, after publicly soliciting research proposals, allowing sufficient time for submission of the proposals, and considering qualitative, quantitative, financial, administrative, and other factors that the Secretary deems important in judging, comparing, and accepting the proposals. The Secretary may reject any or all proposals received under this section if the Secretary determines that it is in the public interest to do so.

(b) *EMPHASIS ON CERTAIN HIGH PRIORITY FORESTRY RESEARCH.*—The Secretary may use up to five percent of the amounts made available for research under section 3 to make competitive grants regarding forestry research in the high priority research areas identified in section 3(d).

(c) *EMPHASIS ON CERTAIN HIGH PRIORITY RANGELANDS RESEARCH.*—The Secretary may use up to five percent of the amounts made available for research under section 3 to make competitive grants regarding rangelands research in the high priority research areas identified in section 3(d).

(d) *PRIORITIES.*—In making grants under subsections (b) and (c), the Secretary shall give priority to research proposals in which—

(1) the proposed research will be collaborative research organized through a center of scientific excellence;

(2) the applicant agrees to provide matching funds (in the form of direct funding or in-kind support) in an amount equal to not less than 50 percent of the grant amount; and

(3) the proposed research will be conducted as part of an existing private and public partnership or cooperative research effort and involves several interested research partners.

\* \* \* \* \*

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## EQUITY IN EDUCATIONAL LAND-GRANT STATUS ACT OF 1994

\* \* \* \* \*

## TITLE V—MISCELLANEOUS PROVISIONS

\* \* \* \* \*

### PART C—1994 INSTITUTIONS

\* \* \* \* \*

#### SEC. 533. LAND-GRANT STATUS FOR 1994 INSTITUTIONS.

(a) \* \* \*

\* \* \* \* \*

(b) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated \$4,600,000 for each of fiscal years 1996 through

**[2000] 2002.** Amounts appropriated pursuant to this section shall be held and considered to have been granted to 1994 Institutions to establish an endowment pursuant to subsection (c).

\* \* \* \* \*

**SEC. 535. INSTITUTIONAL CAPACITY BUILDING GRANTS.**

(a) \* \* \*

**(b) IN GENERAL.—**

(1) **INSTITUTIONAL CAPACITY BUILDING GRANTS.**—For each of fiscal years 1996 through **[2000] 2002**, the Secretary shall make two or more institutional capacity building grants to assist 1994 Institutions with constructing, acquiring, and remodeling buildings, laboratories, and other capital facilities (including fixtures and equipment) necessary to conduct instructional activities more effectively in agriculture and sciences.

\* \* \* \* \*

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Department of Agriculture to carry out this section, \$1,700,000 for each of fiscal years 1996 through **[2000] 2002.**

\* \* \* \* \*

**SEC. 536. RESEARCH GRANTS.**

(a) **RESEARCH GRANTS AUTHORIZED.**—The Secretary of Agriculture may make grants under this section on the basis of a competitive application process (and in accordance with such regulations that the Secretary may promulgate) to a 1994 Institution to assist the 1995 Institution to conduct agricultural research that addresses high priority concerns of tribal, national, or multi-state significance.

(b) **REQUIREMENTS.**—Grant applications submitted under this section shall certify that the research to be conducted will be performed under a cooperative agreement with at least one other land-grant college or university (exclusive of another 1994 Institution).

(c) **AUTHORIZATION OF APPROPRIATION.**—There are authorized to be appropriated such sums as may be necessary to carry out this section for each of the fiscal years 1998 through 2002. Amounts appropriated shall remain available until expended.

**SECTION 1431 OF THE NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT AMENDMENTS OF 1985**

**AUTHORIZATION FOR APPROPRIATIONS FOR FEDERAL AGRICULTURAL RESEARCH FACILITIES**

**SEC. 1431.** There are authorized to be appropriated for each of the fiscal years 1991 through **[1997] 2002**, such sums as may be necessary for the planning, construction, acquisition, alteration, and repair of buildings and other public improvements, including the cost of acquiring or obtaining rights to use land, of or used by the Agricultural Research Service, except that—

(1) the cost of planning any one facility shall not exceed \$500,000; and

(2) the total cost of any one facility shall not exceed \$5,000,000.

## **SECTION 16 OF THE CRITICAL AGRICULTURAL MATERIALS ACT**

**SEC. 16.** (a) There are authorized to be appropriated to the Secretary of Agriculture such sums as are necessary to carry out this Act in each of the fiscal years 1991 through [1997] 2002.

\* \* \* \* \*

## **SECTION 1432 OF THE NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT AMENDMENTS OF 1981**

### **AGRICULTURE RESEARCH IN 1890 LAND-GRANT COLLEGES, INCLUDING TUSKEGEE INSTITUTE**

**SEC. 1432. (a)** \* \* \*

[(b)(1) The Secretary of Agriculture shall make a grant of funds appropriated under paragraph (5) of this subsection to the one college of all the colleges eligible to receive funds under the Act of August 30, 1890 (7 U.S.C. 321 et seq.), including Tuskegee Institute, which on the date of the enactment of this title—

[(A) has initiated a dairy goat research program; and

[(B) has the best demonstrable capacity to carry out dairy goat research.]

[(2) Any grant received under paragraph (1) by such college may be expended to—

[(A) pay expenses incurred in conducting dairy goat research;

[(B) print and disseminate the results of such research;

[(C) contribute to the retirement of employees engaged in such research;

[(D) plan, administer, and direct such research; and

[(E) construct, acquire, alter, and repair buildings necessary to conduct such research.]

[(3)(A) Under the terms of such grant, funds appropriated under paragraph (5) of this subsection for a fiscal year shall be paid to such college in equal quarterly installments beginning on or about the first day of October of such year upon vouchers approved by the Secretary of Agriculture.

[(B) Not later than sixty days after the end of each fiscal year for which funds are paid under this subsection to such college, the research director of such college shall submit to the Secretary a detailed statement of the disbursements in such fiscal year of funds received by such college under this subsection.

[(C) If any of the funds so received by such college are by any action or contingency misapplied, lost, or diminished, then—

[(i) such college shall replace such funds; and

[(ii) the Secretary shall not distribute to such college any other funds under this subsection until such replacement is made.]

**[(4) For purposes of section 1445(e) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3222(e)), research and experiments funded under this subsection shall be deemed to be research and experiments funded under section 1445 of such Act.**

**[(5) There is authorized to be appropriated to the Secretary to carry out this subsection, for each of the fiscal years 1991 through 1997 an amount equal to one per centum of the aggregate amount of funds appropriated under section 1445 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3222) in the fiscal year preceding the fiscal year for which funds are authorized to be appropriated under this paragraph.]**

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## **FEDERAL AGRICULTURE IMPROVEMENT AND REFORM ACT OF 1996**

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### **TITLE VIII—RESEARCH, EXTENSION, AND EDUCATION**

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#### **Subtitle E—Research Authority After Fiscal Year 1997**

##### **[SEC. 897. AUTHORIZATION OF APPROPRIATIONS.**

**[Subject to section 898, there are authorized to be appropriated for fiscal years 1998 through 2002 such sums as are necessary to carry out the agricultural research, extension, and education activities and initiatives of the Department of Agriculture.**

##### **[SEC. 898. ACTIVITIES SUBJECT TO AVAILABILITY OF APPROPRIATIONS.**

**[During each of fiscal years 1998 through 2002, the Secretary of Agriculture shall conduct only those agricultural research, extension, and education activities and initiatives of the Department of Agriculture for which funds are specifically provided for the fiscal year in an appropriation Act.]**

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### **SECTION 6 OF THE ACT OF MARCH 4, 1927**

**AN ACT Authorizing the Secretary of Agriculture to establish a national arboretum, and for other purposes**

#### **SEC. 6. CONCESSIONS, FEES, AND VOLUNTARY SERVICES.**

**(a) \* \* \***

**(b) USE OF FUNDS.—Any funds received or collected by the Secretary of Agriculture as a result of activities described in subsection (a) shall be retained in a special fund in the [Treasury] Treasury. Amounts in the special fund shall be available to the Secretary of Agriculture, without further appropriation, for the use and**

benefit of the National Arboretum as the Secretary of Agriculture considers appropriate.

\* \* \* \* \*

## ADDITIONAL VIEWS

Black land-grant colleges and universities (commonly referred to as "1890s") constitute some of the largest and most prestigious historically Black institutions of higher education in the nation. They are located in 17 states and enroll approximately 50 percent of all students in four-year programs. As economic instruments of the state and the nation, these institutions are committed to carrying out their historic land-grant mission of teaching, research and extension. Through the land-grant mission, 1890s have had an extraordinary influence on the lives of African Americans and particularly those in limited resource communities.

While challenging historic inequities, the 1890s have been exemplary role models, have served as a fertile source of professional leadership and have fostered an unyielding commitment to academic excellence, social equality and the assurance of a decent future for students from the lowest economic strata of the Nation. Although the 1890s have played a major role in fostering equality of opportunity in agricultural sciences and beyond, they continue to face nearly insurmountable barriers in generating in the level and quality of resources traditionally available to comparable institutions of higher learning. Indeed, the 1890s are products of a tenaciously segregated system of higher education. Discriminatory policies and practices at the state level continue to have an adverse impact on the capacity of these institutions to create competitive programs in research, teaching and extension.

For a number of reasons, since passage of the Justice Morril Acts states have failed to provide matching support for land-grand programs comparable to appropriations to 1862 land-grand institutions. Alcorn State University is the only Black land-grant university receiving 100 percent matching support commensurate with federal formula funds. Other 1890s receive either no state support or less than 25 percent. This virtual absence of state support is compounded by the lack of federal support, which was not appropriated until 1967.

It is our view that to promote preeminence in the nation's land-grant system, states should be encouraged to provide the level and quality of support that will contribute significantly to the overall vitality of the university community and the students and families they serve. The 1890s are in a strategic position to serve as economic instruments to the nation in serving limited resource farmers and families, and the necessity of containing this mission has recently been highlighted by the finding of the USDA's Civil Rights Action Team Report (February 1997).

Thus, it is critical that the Congress recognize these historic factors, and it is our hope that section 212 and other relevant sections of HR 2543, the 1997 Research Reauthorization Bill, adequately account for the systemic inequities in the land-grant and particularly

in the allocation of state matching support to the 1890s. It is equally critical that he Congress and the Secretary encourage states, USDA and 1890 universities to formulate appropriate policies and programs that foster fiscal parity, while resolving a range of other disparities—state of the art facilities, basic and applied research in food and agriculture sciences, information technology and telecommunications graduate and doctoral programs, and comprehensive outreach programs to limited source communities.

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